Endangered Training Habitat -Constraints to Training on Fort Huachuca, Arizona

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Ft. Collins, CO

U.S. ARMY TRAINING AND DOCTRINE COMMAND

U.S. Army Information Systems Engineering Command

"Excellence in Engineering"

USASC

B Troop

US ARMY INTELLIGENCE CENTER & FORT HUACHUCA

Army Intelligence Surveillance & Reconnaissance

VIRTUS, VIGILANTIA, VICTORIA

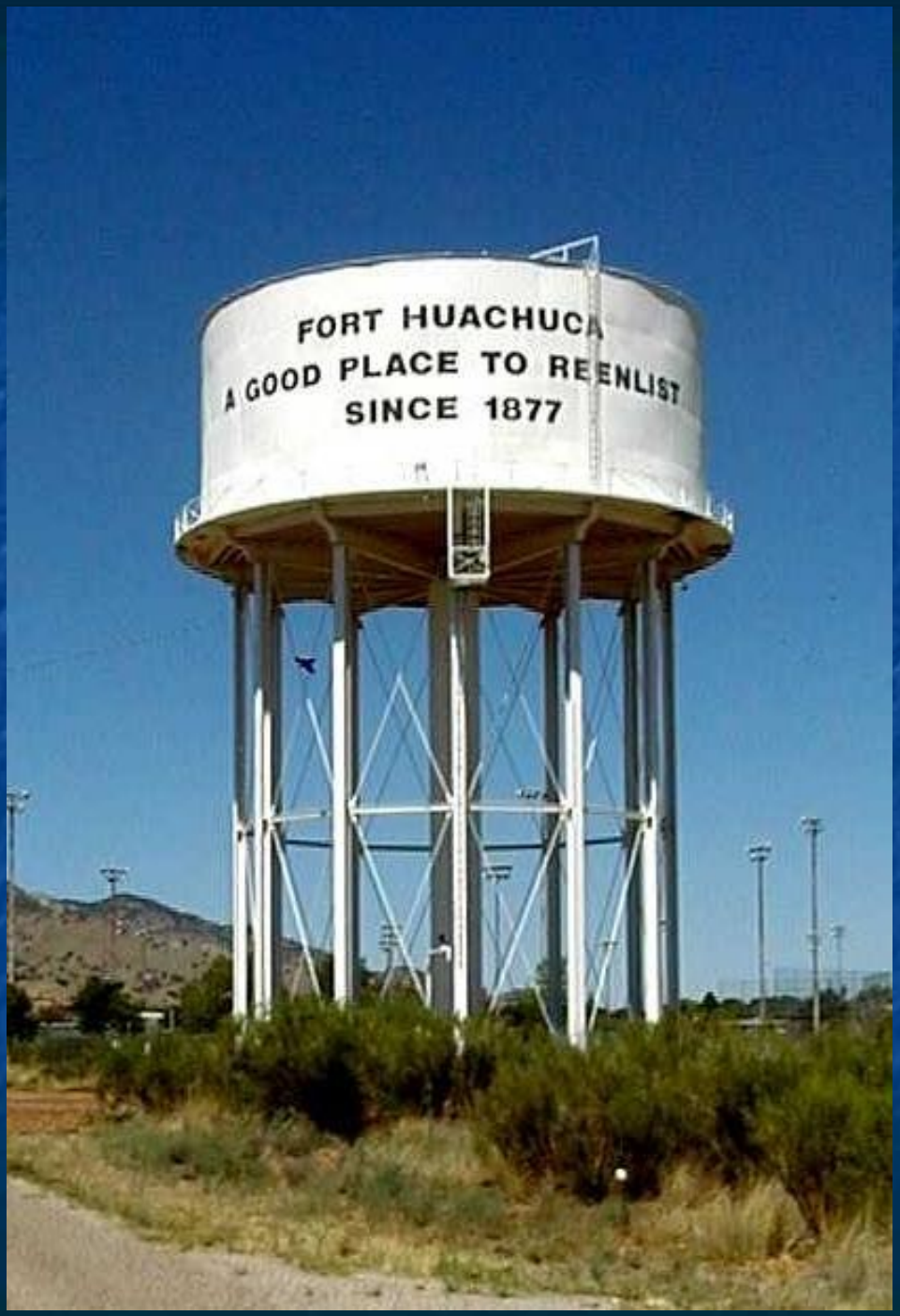
Electronic Proving Ground

The Army's C4I Developmental Tester

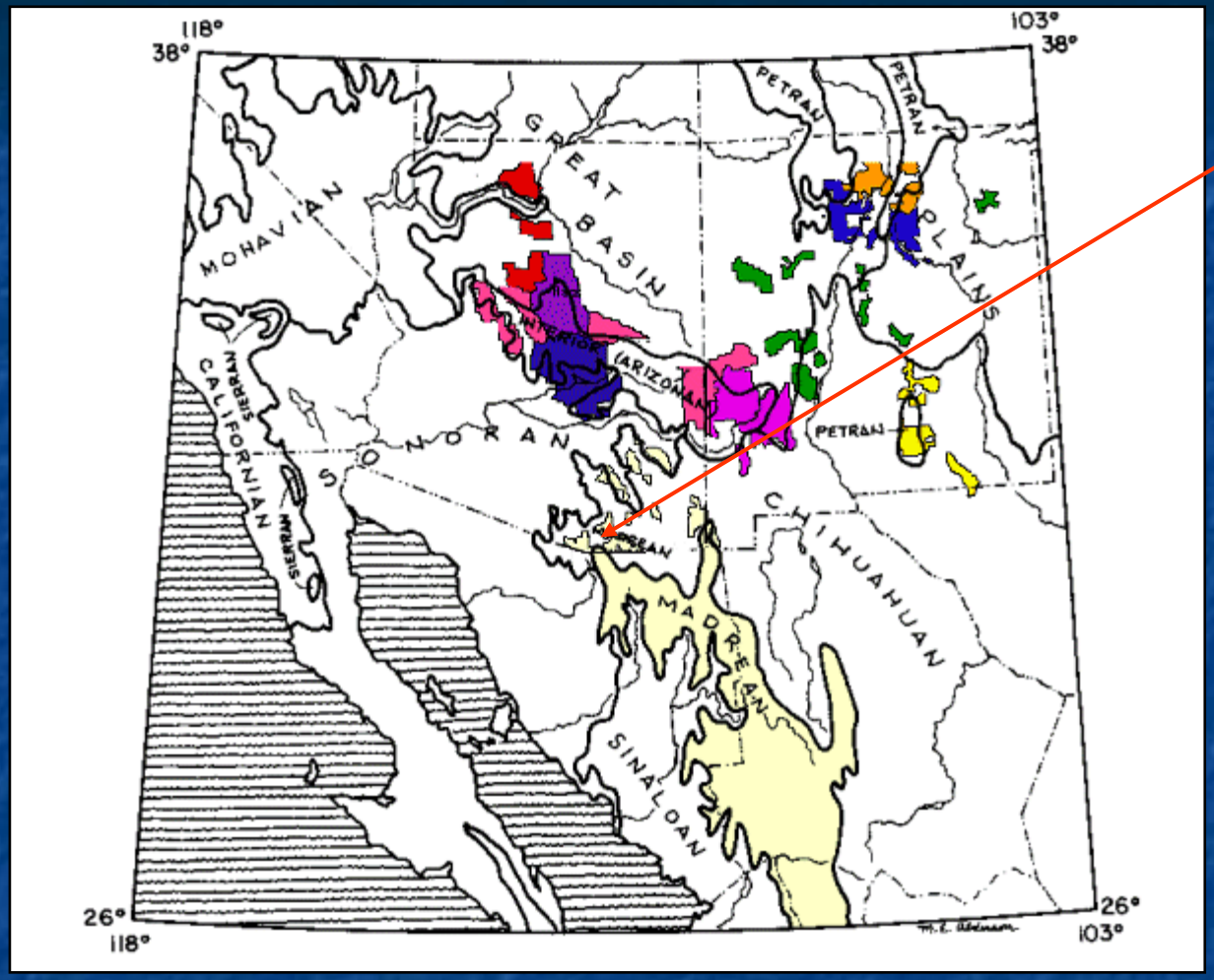
Major Missions

- Communications-electronic testing,
- Research, development, equipment testing of electronic warfare and information systems,
- Unmanned Aerial Vehicle (UAV) testing and training,
- Signal Brigade field training with rapid deployment missions,
- Training support for active duty, Reserve, and National Guard forces

Location of Fort Huachuca, Arizona

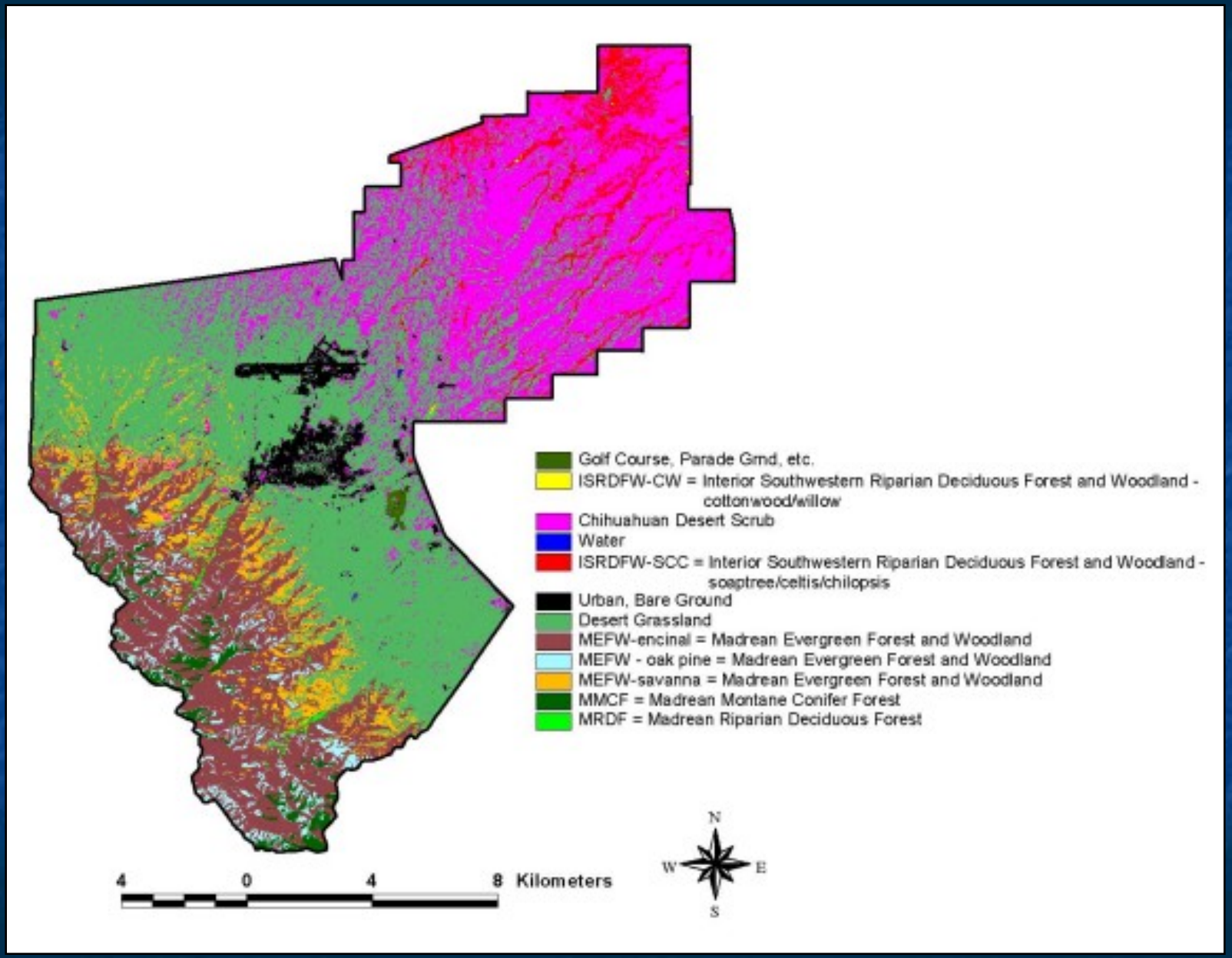

FORT HUACHUCA
A GOOD PLACE TO REENLIST
SINCE 1877

Vegetation
Location
T & E Species
Other species
Critical habitat
Archeology
City encroachment



Madrean archipelago

Vegetation of Fort Huachuca


Golf Course, Parade Grnd, etc.
ISRDFW-CW = Interior Southwestern Riparian Deciduous Forest and Woodland - cottonwood/willow
Chihuahuan Desert Scrub
Water
ISRDFW-SCC = Interior Southwestern Riparian Deciduous Forest and Woodland - soaptree/celtis/chilopsis
Urban, Bare Ground
Desert Grassland
MEFW-encinal = Madrean Evergreen Forest and Woodland
MEFW - oak pine = Madrean Evergreen Forest and Woodland
MEFW-savanna = Madrean Evergreen Forest and Woodland
MMCF = Madrean Montane Conifer Forest
MRDF = Madrean Riparian Deciduous Forest
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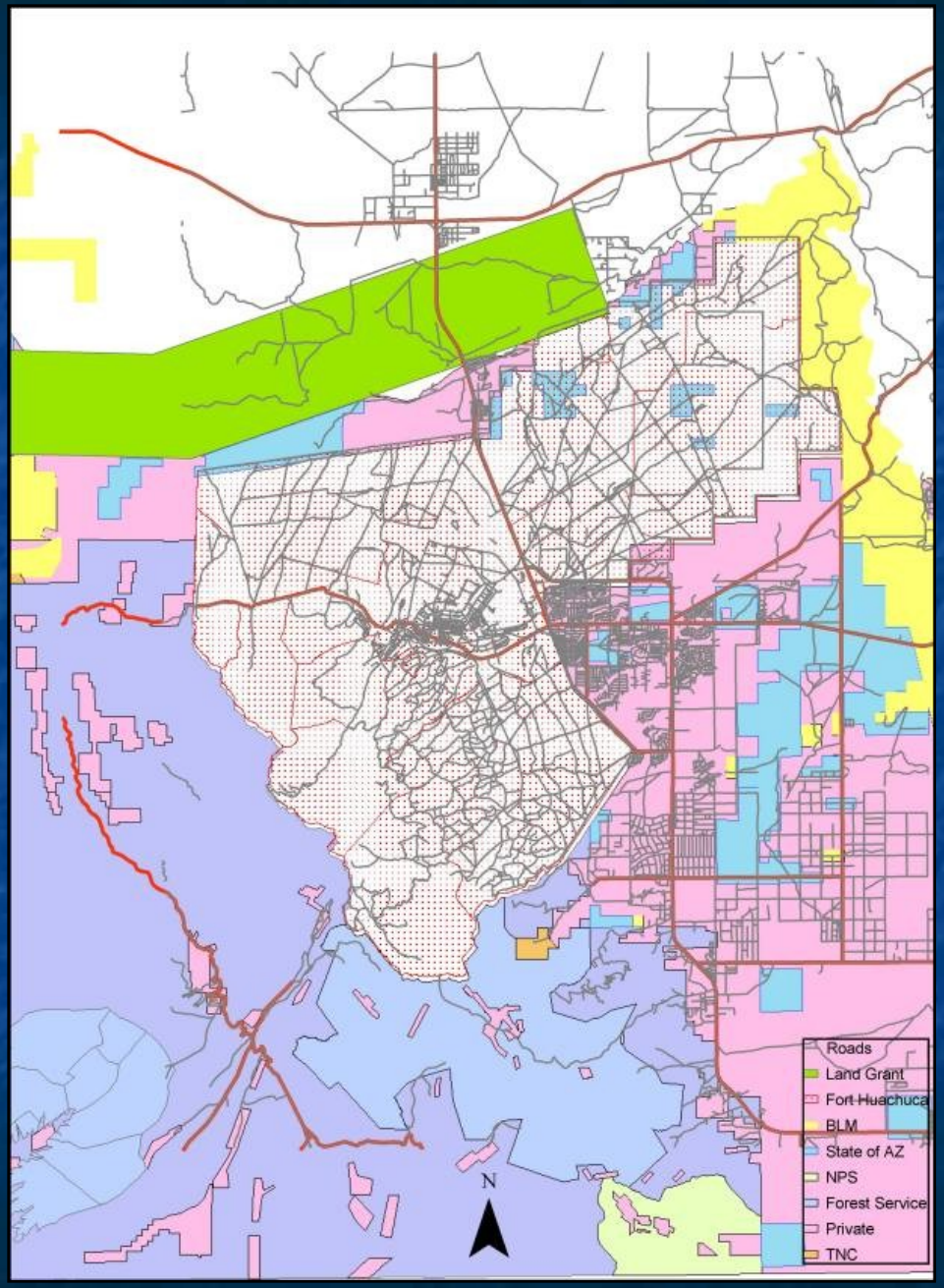
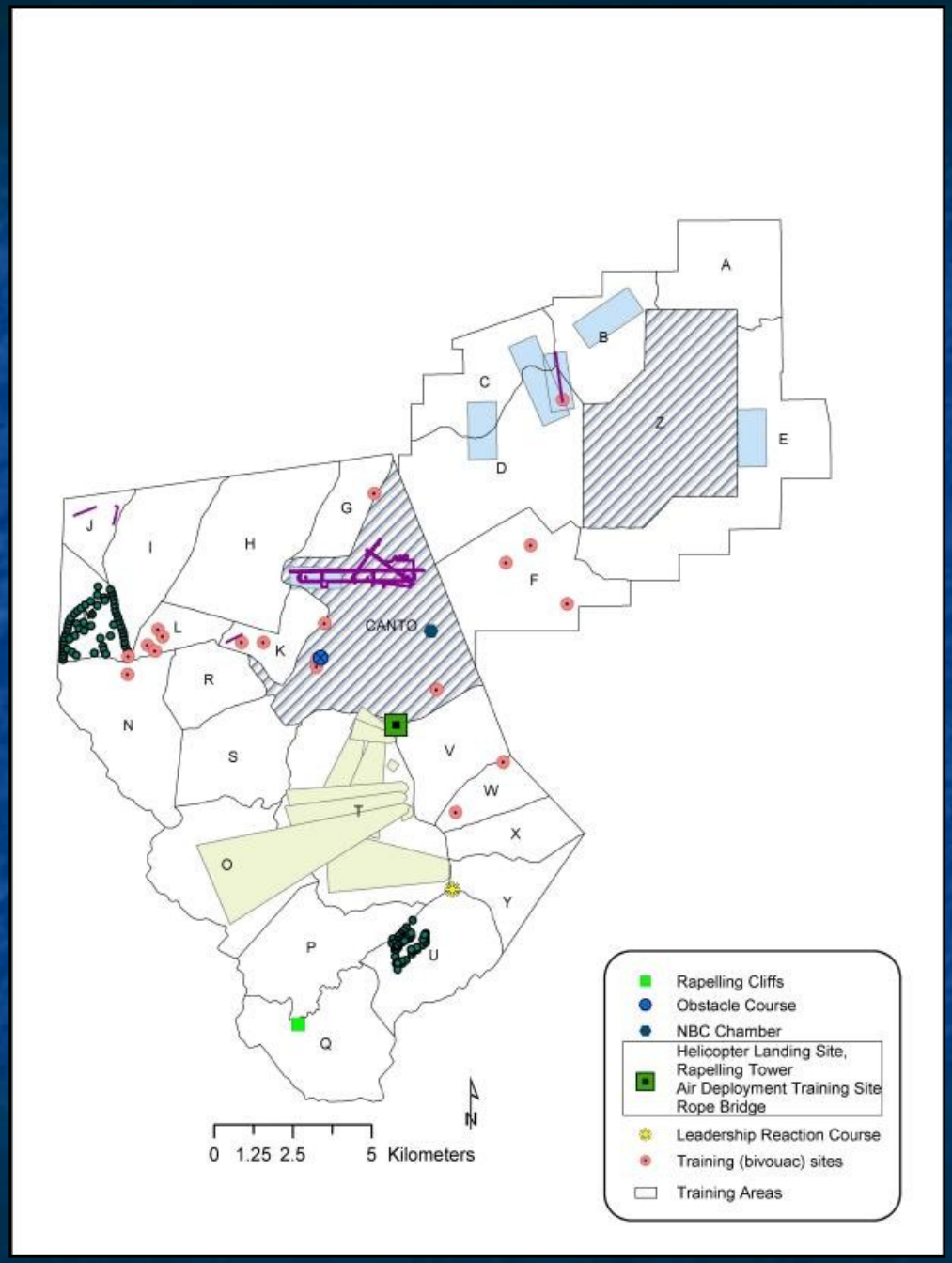
Other land owners surrounding Fort Huachuca

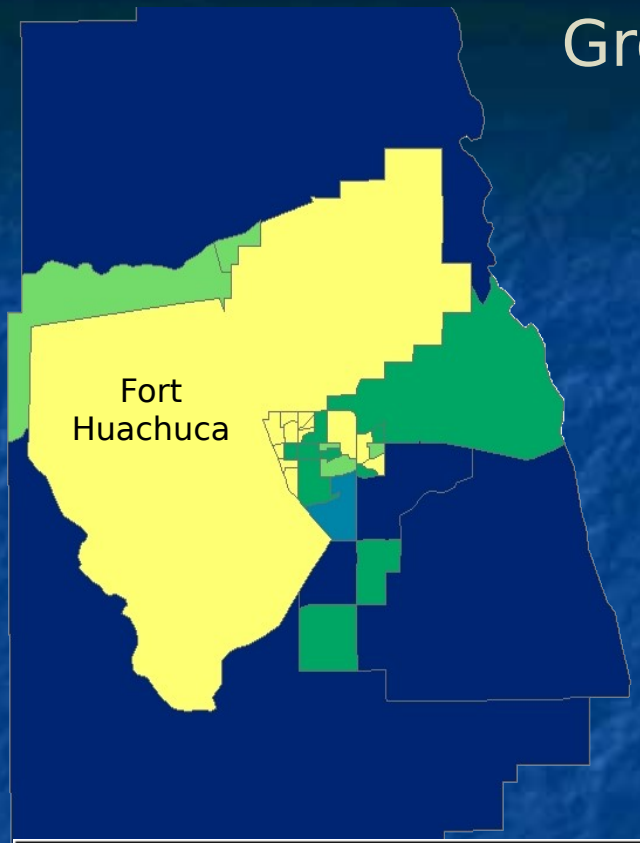


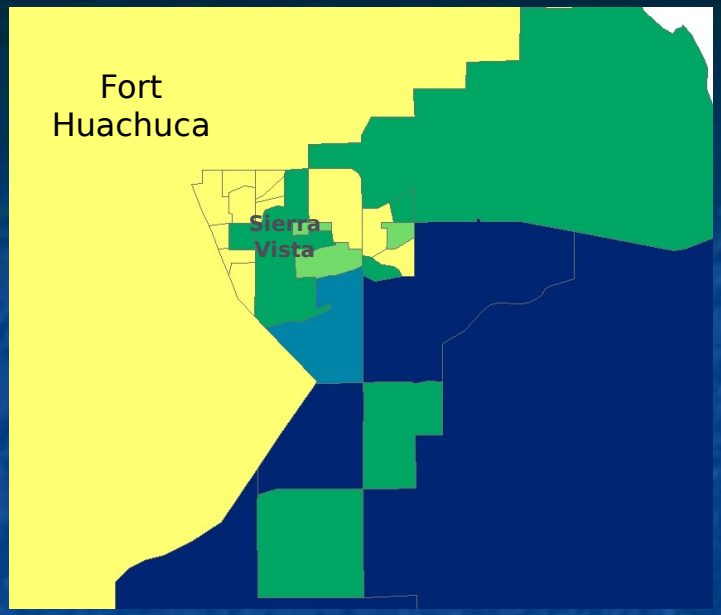
Training sites and facilities



View of Sierra Vista, AZ,
(bottom views show Ft. Huachuca in the background)

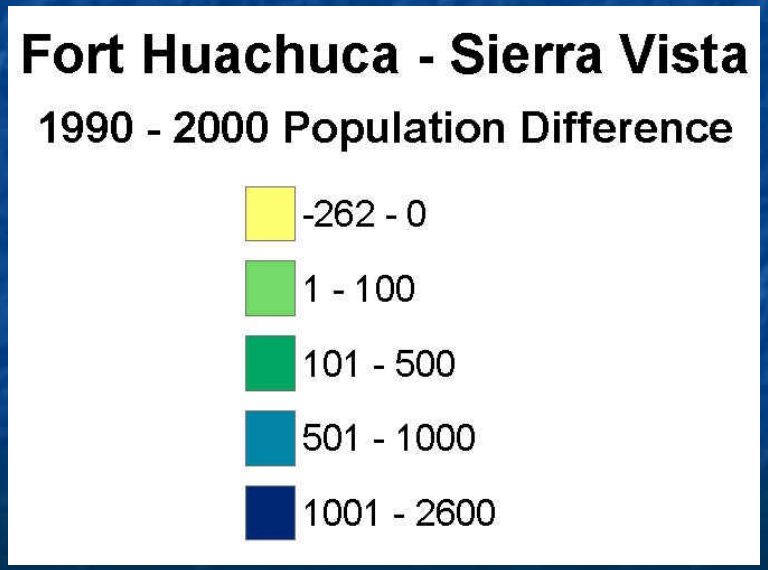
Growth



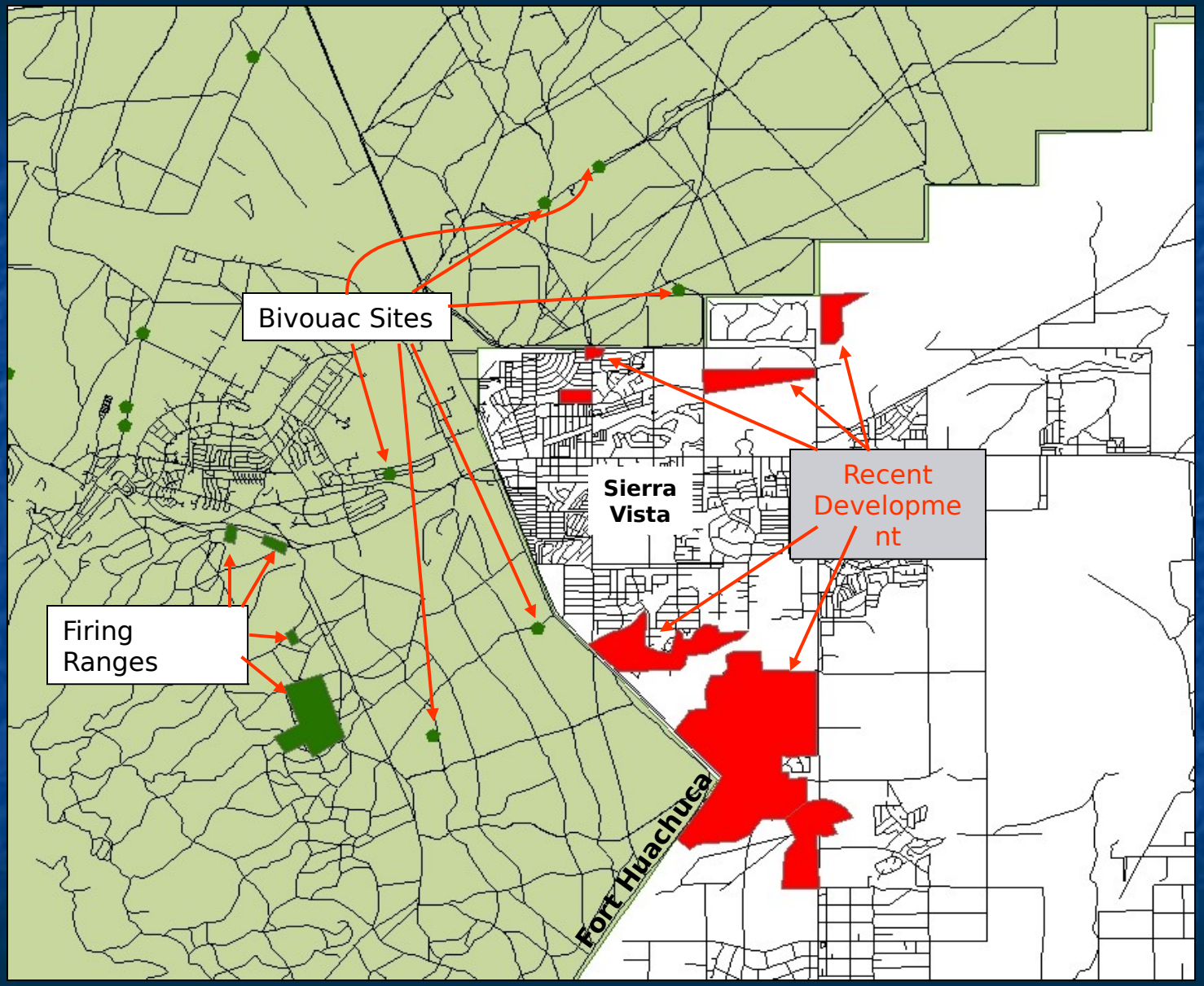


Year	Population	% Change
1960	3,121	
1970	6,689	114.3
1980	24,937	272.8
1990	32,983	32.3
2000	37,775	14.5
2001	38,740	2.6

Source: US Census Bureau



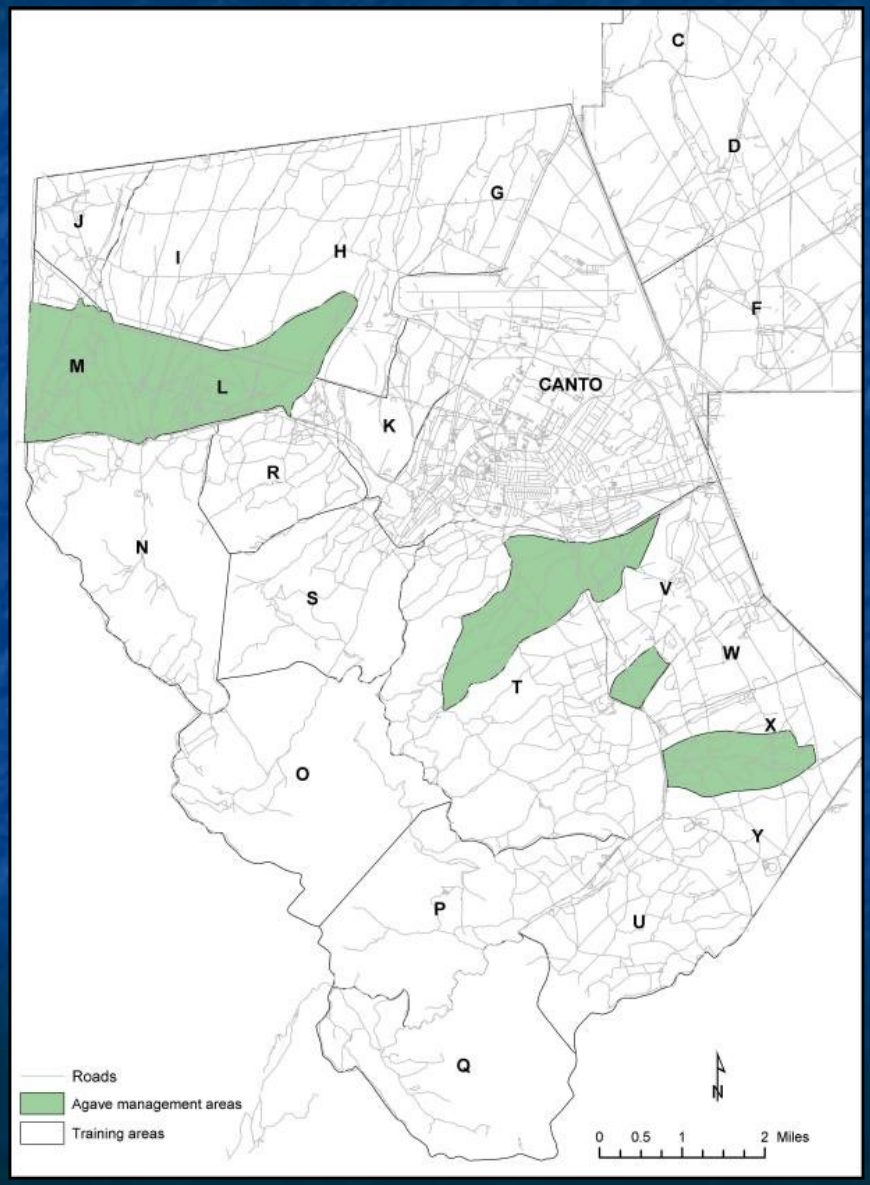
Population Encroachment



Threatened and endangered species on or adjacent to Fort Huachuca, all with critical habitat

- Lesser long-nosed bat
- Mexican spotted owl
- Huachuca water umbel
- Southwestern willow flycatcher
- Sonoran tiger salamander

Lesser Long-nosed bat and forage habitat

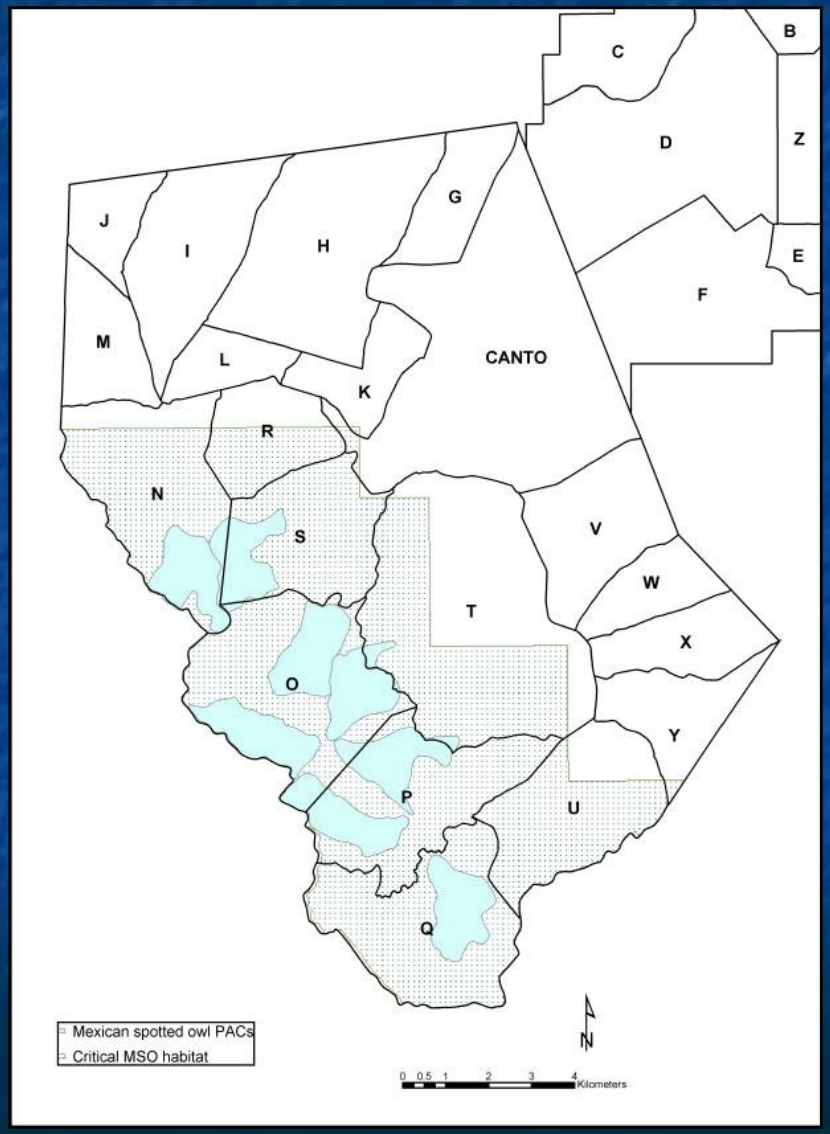


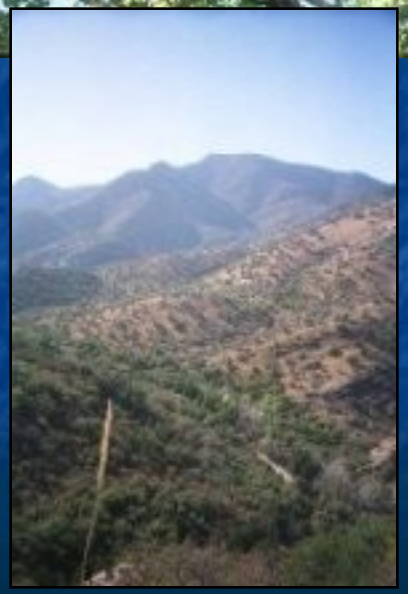
Training Restrictions

Lesser Long-nosed bat (1 June through 31 September)

- No pyro within 0.25 mile of Agave Management Areas (AMAs).
- No night training in AMAs.
- No night time tracer fire.
- No low-level helicopter flights within 350 ft of bat caves.
- Nocturnal UAV flights must fly >500 ft except for take-off and landings.
- UAV landing approaches limited to north & west.
- No nocturnal rocket-assisted UAV take-offs.

MSO and critical habitat



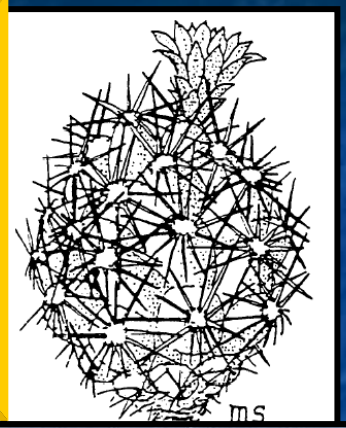


Training Restrictions

Mexican Spotted Owl (31 March through 31 Oct)

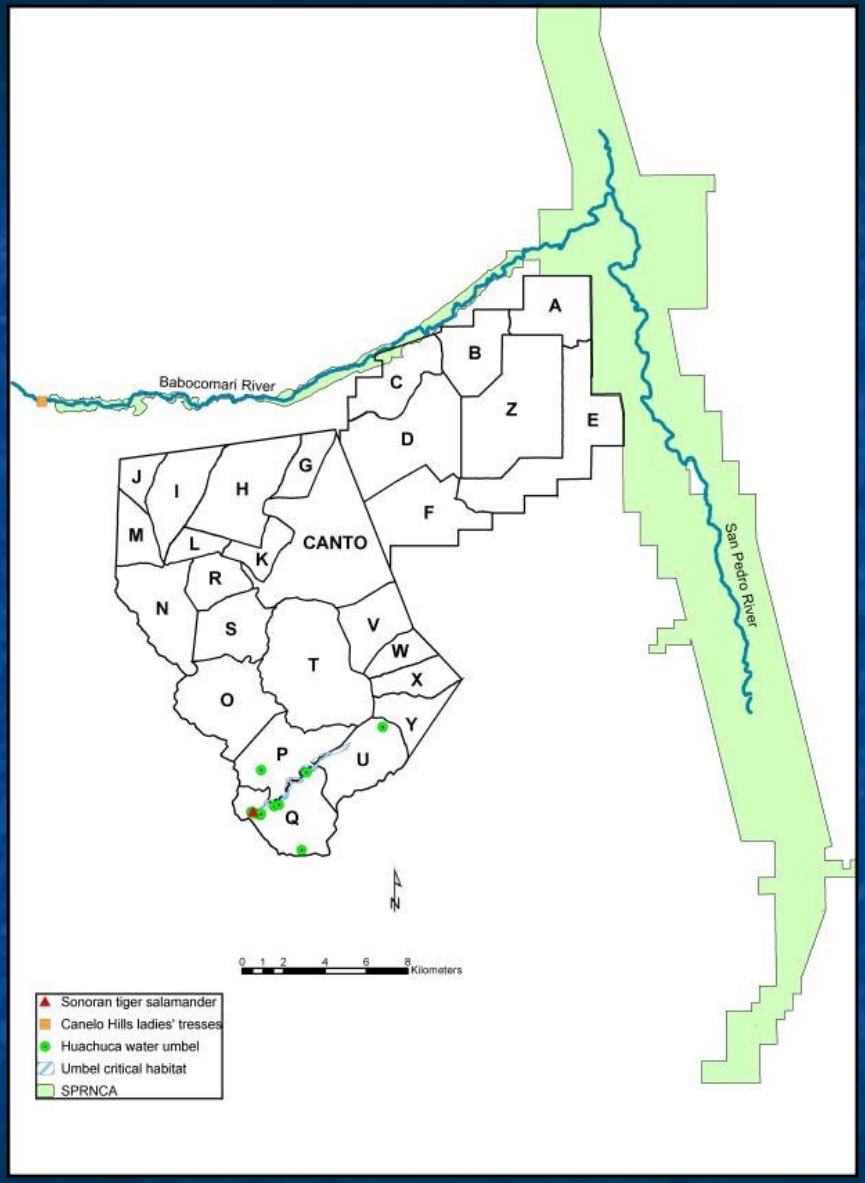
- Critical habitat 22,000 acres.
- Minimize low-level helicopter flights within 1.0 mile of the nest.
- No helicopter flights closer than 0.25 mile to active nests March 1-August 31.
- No use of rappelling cliffs if MSOs are found nesting in canyon within 0.25 until nestlings fledge.

Other sensitive species / issues

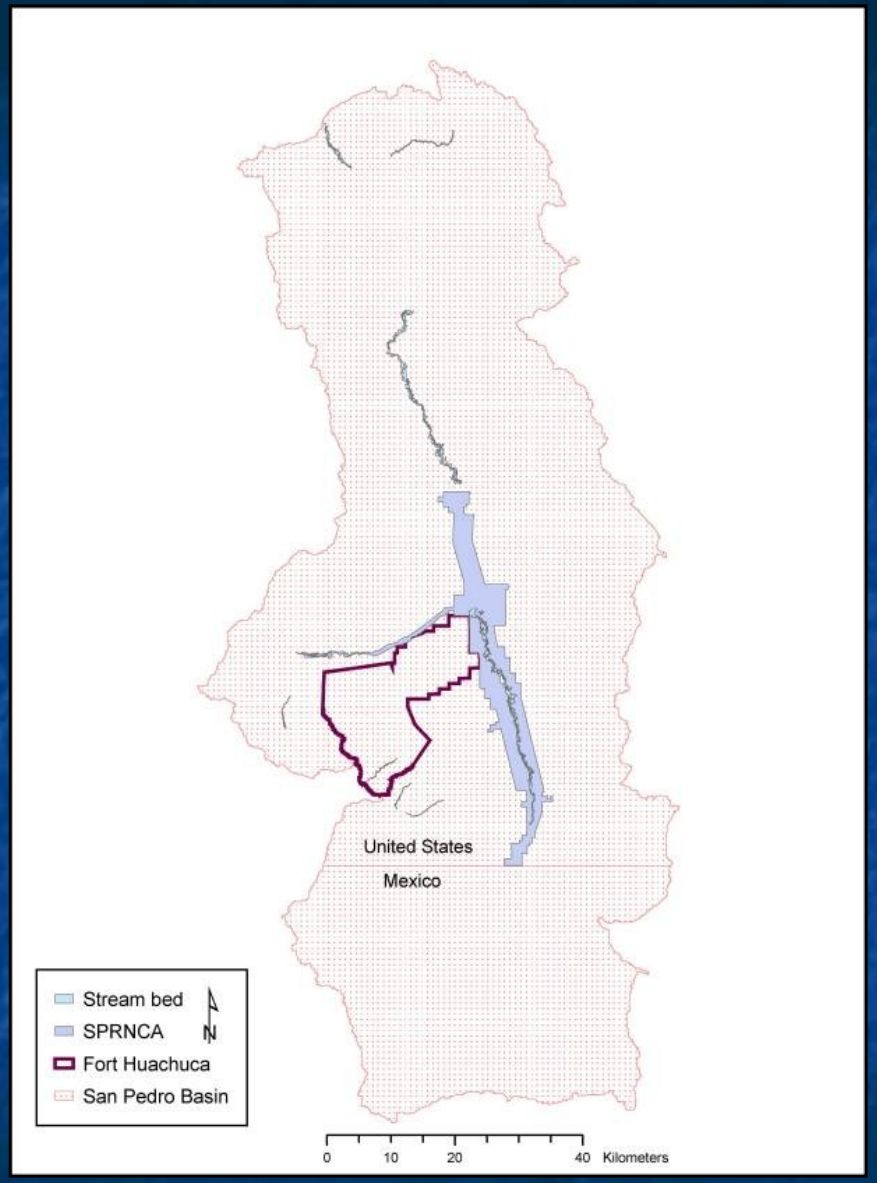


USFWS Photo by Marty Jakle

- Loach minnow
- Spikedace
- Cochise pincushion cactus
- Canelo Hills Ladies' Tresses
- Blumers Dock
- Lemmon Fleabane
- Huachuca Springsnail
- Ramsey Canyon Leopard Frog
- other
- **WATER!! (it's a DESERT!!)**

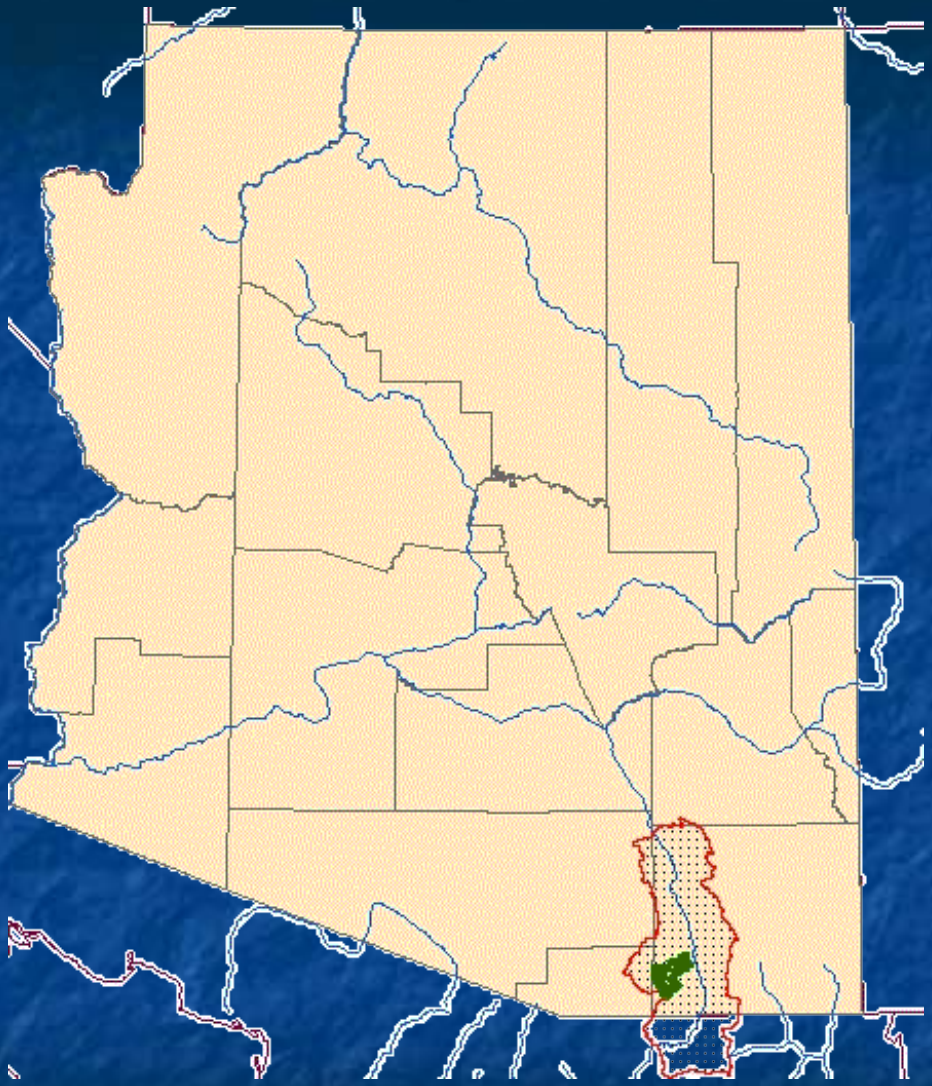


SPRNCA

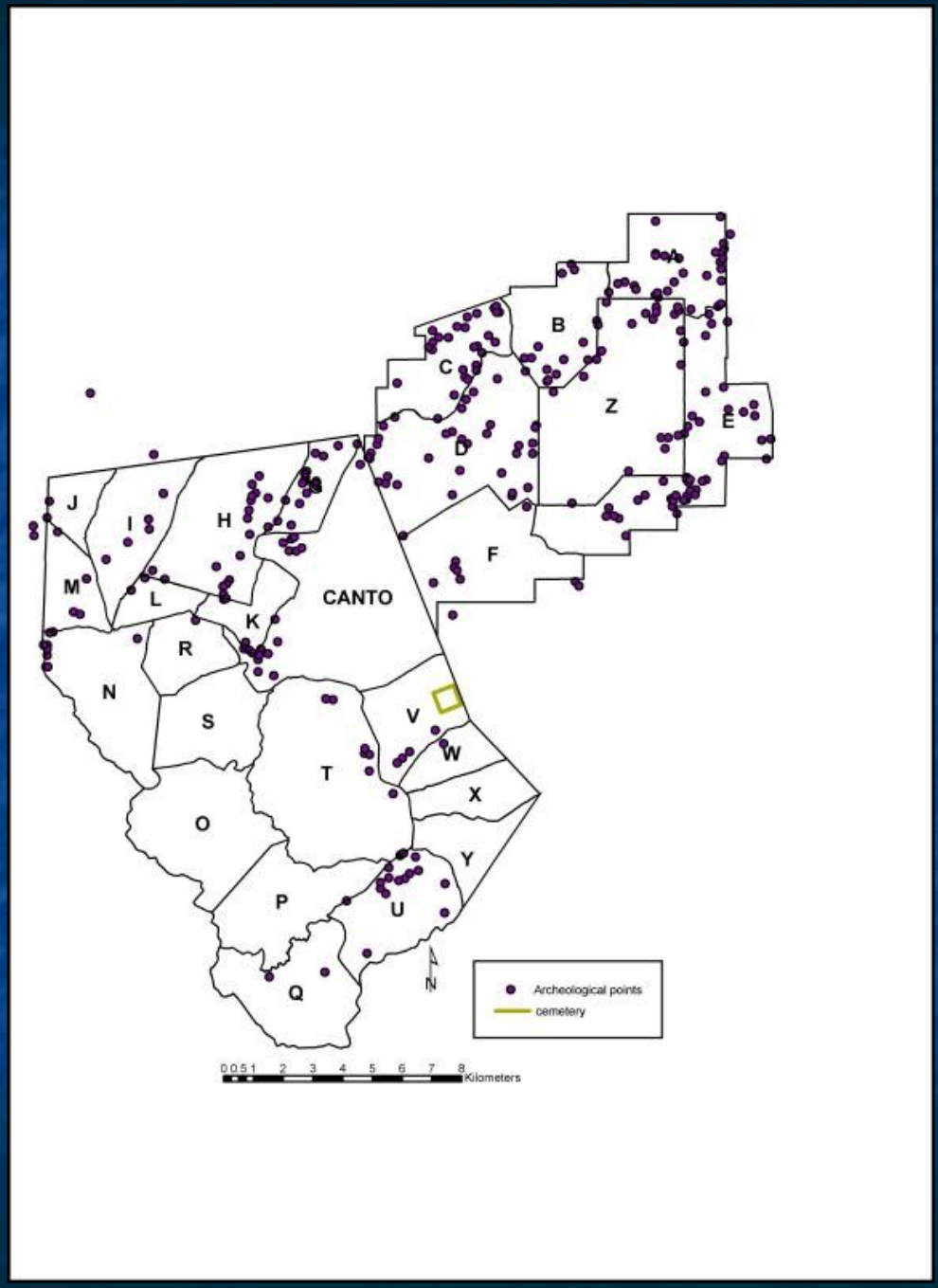


SP Basin

Influence of the San Pedro Basin



Archaeological sites



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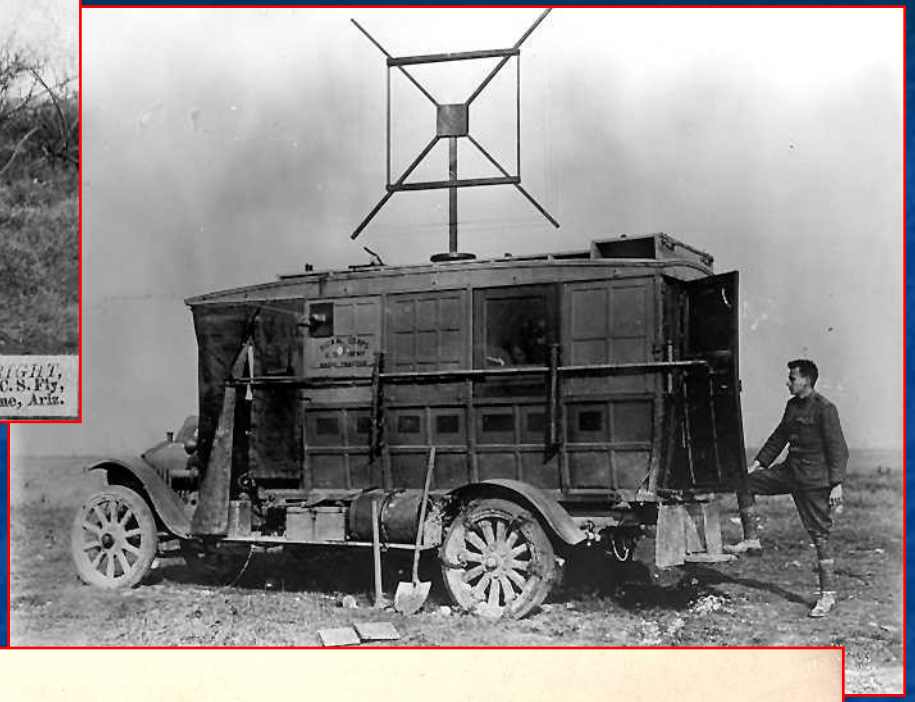
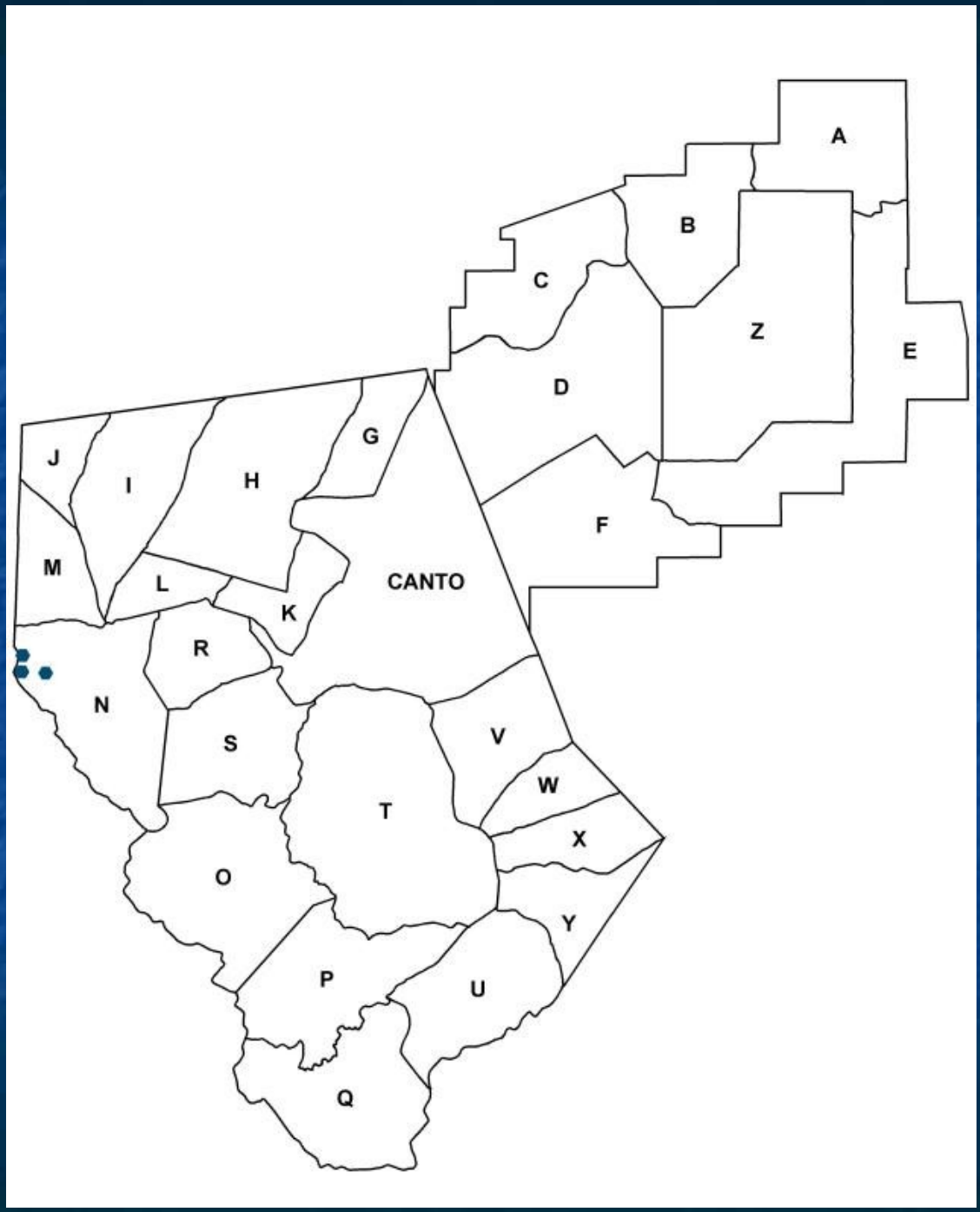
mbstone, Ariz.

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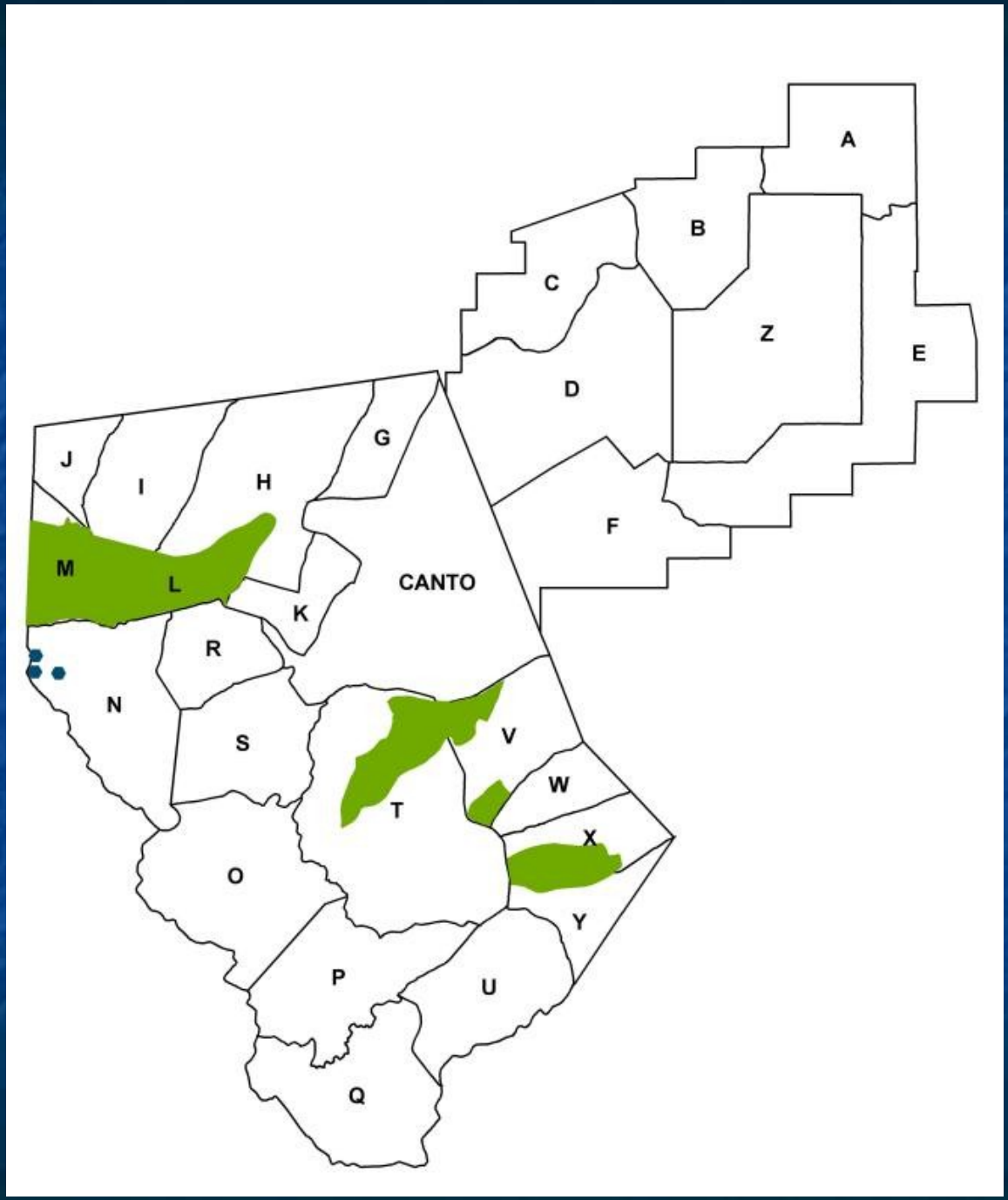
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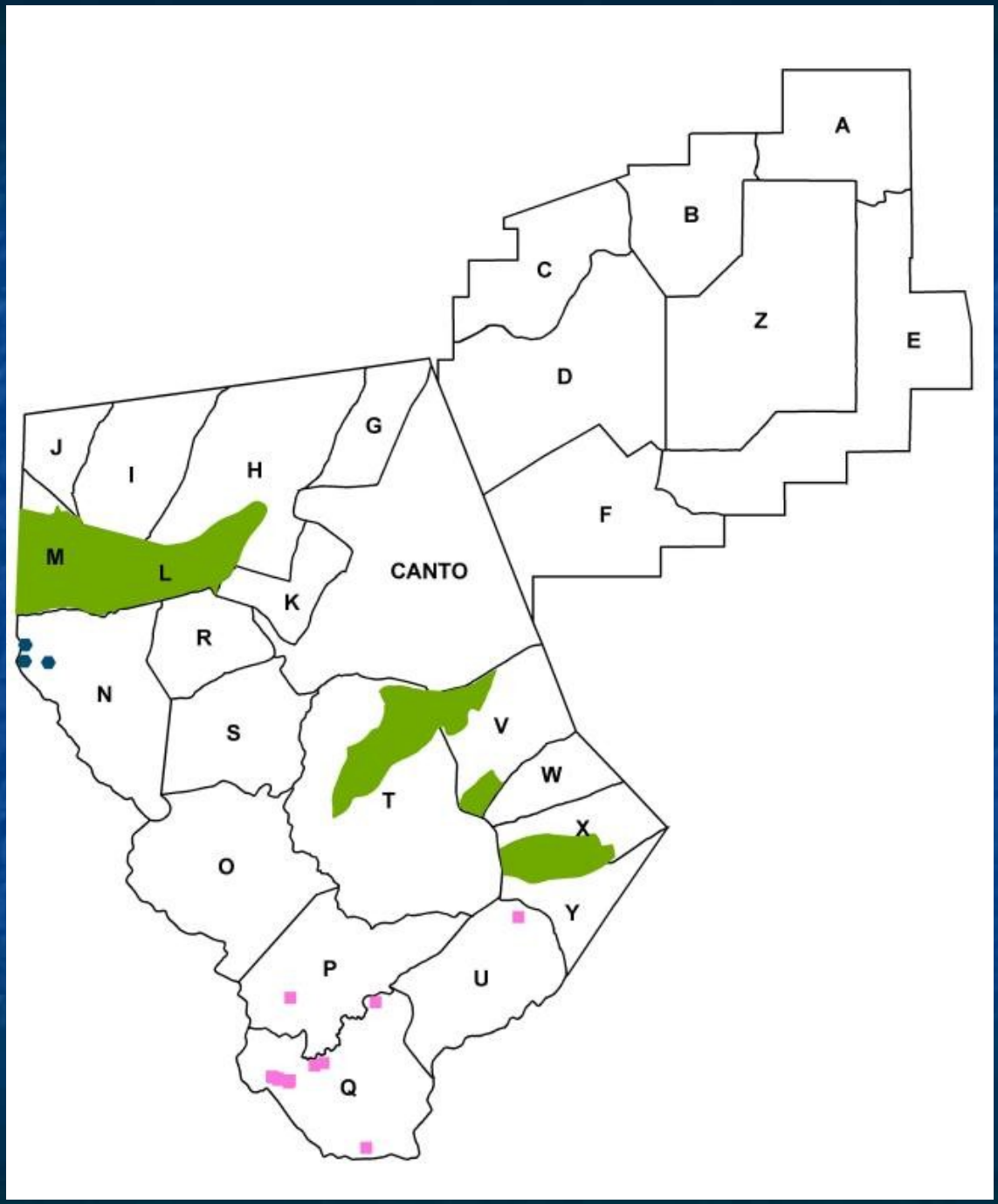
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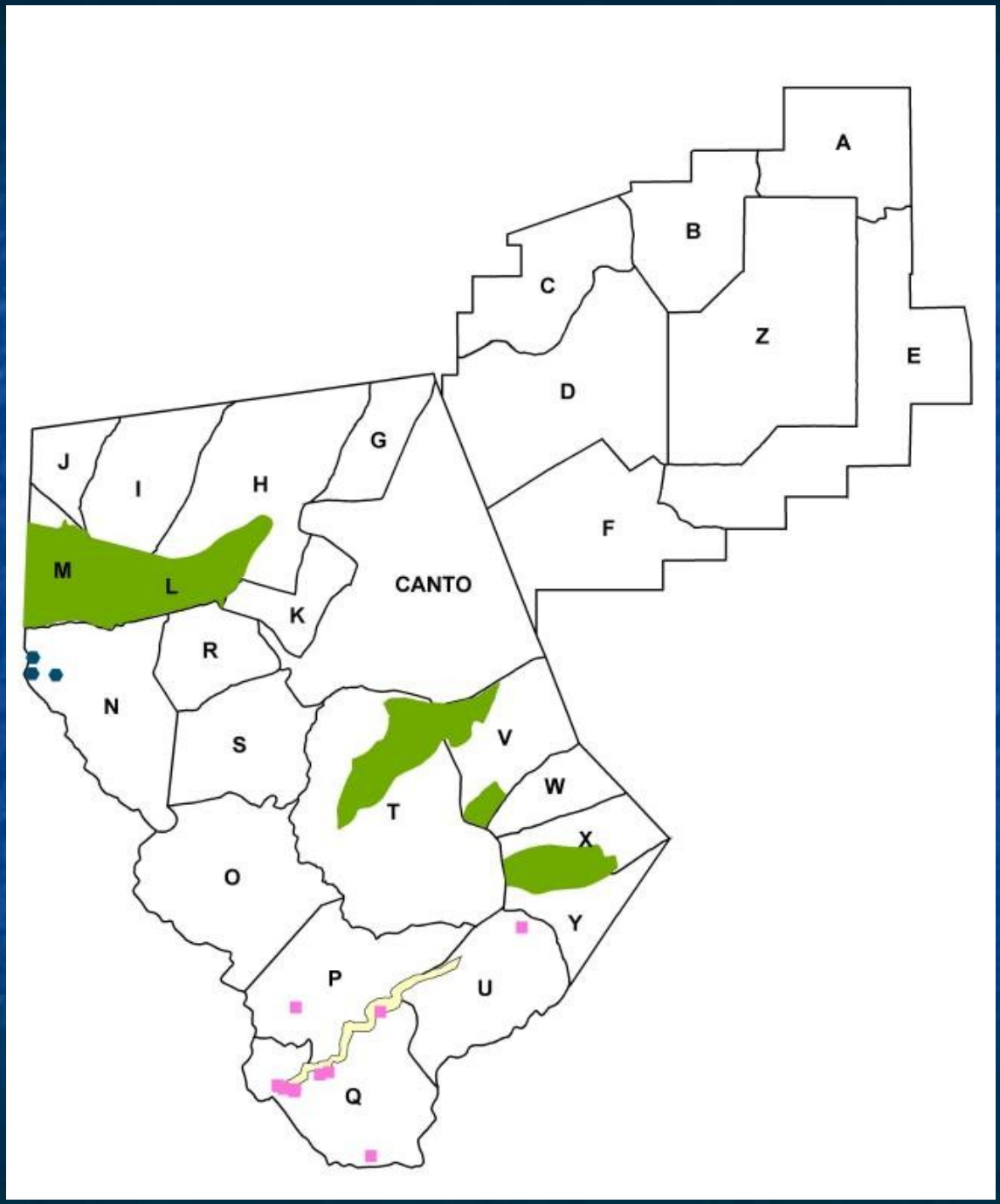
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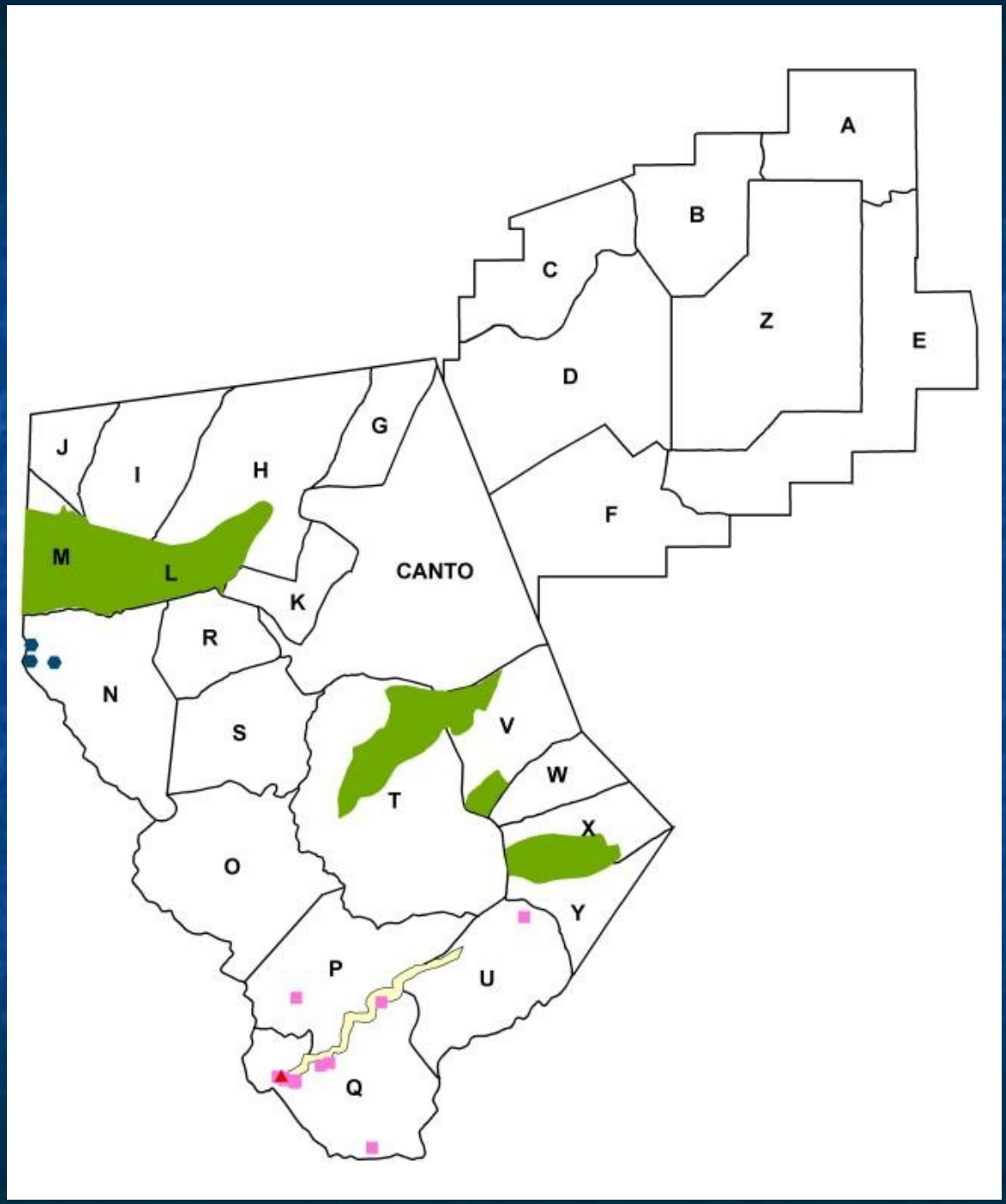
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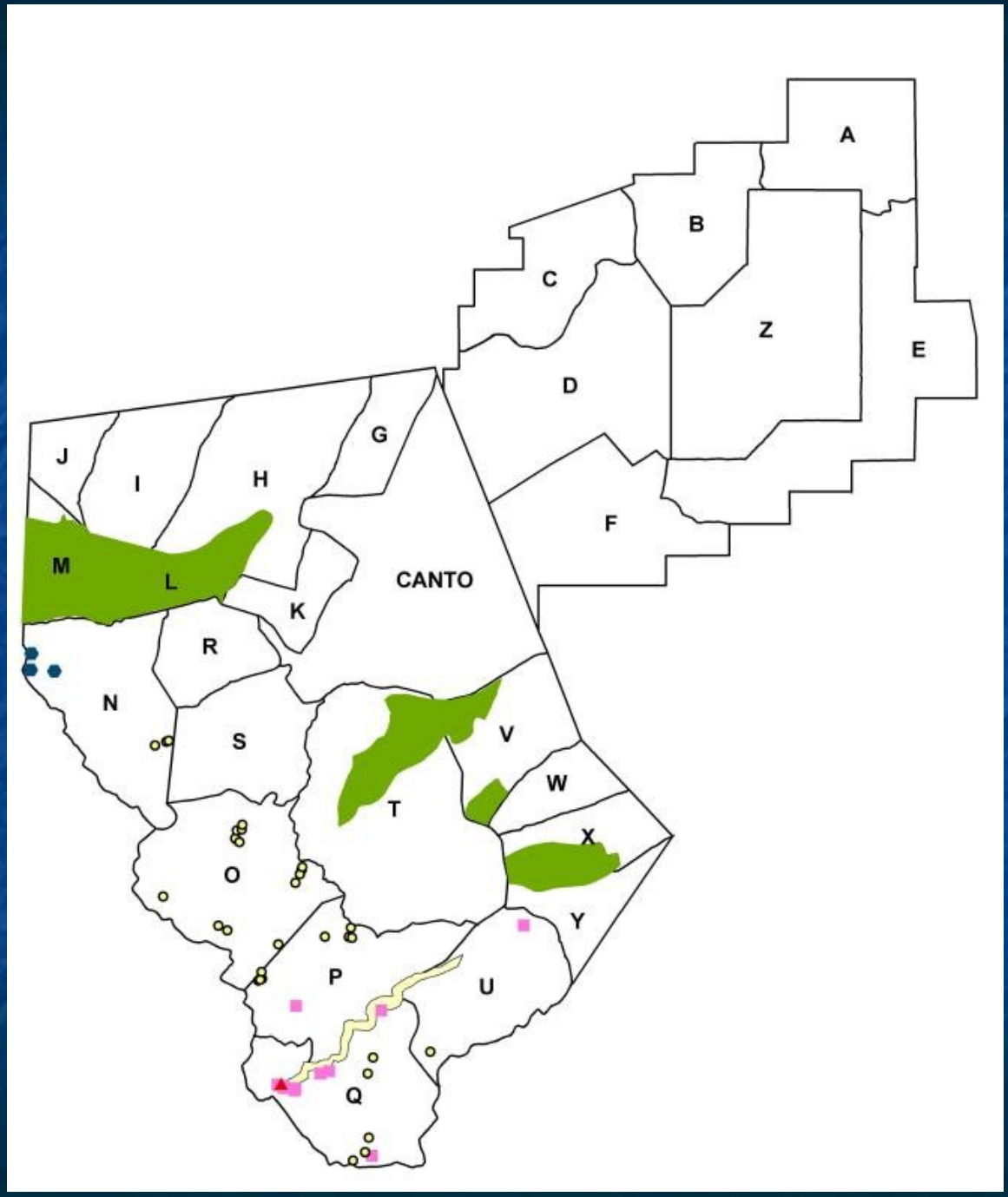
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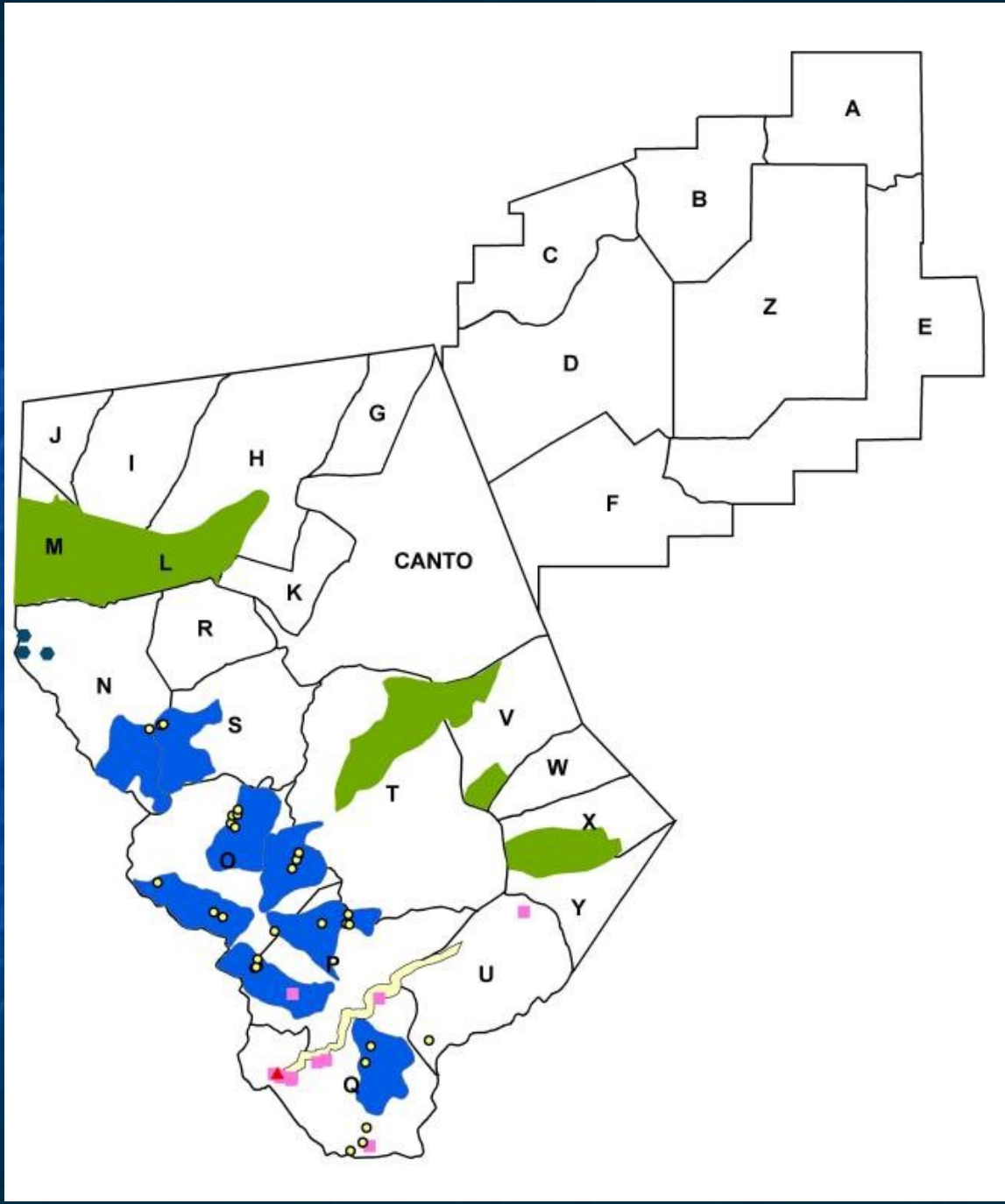
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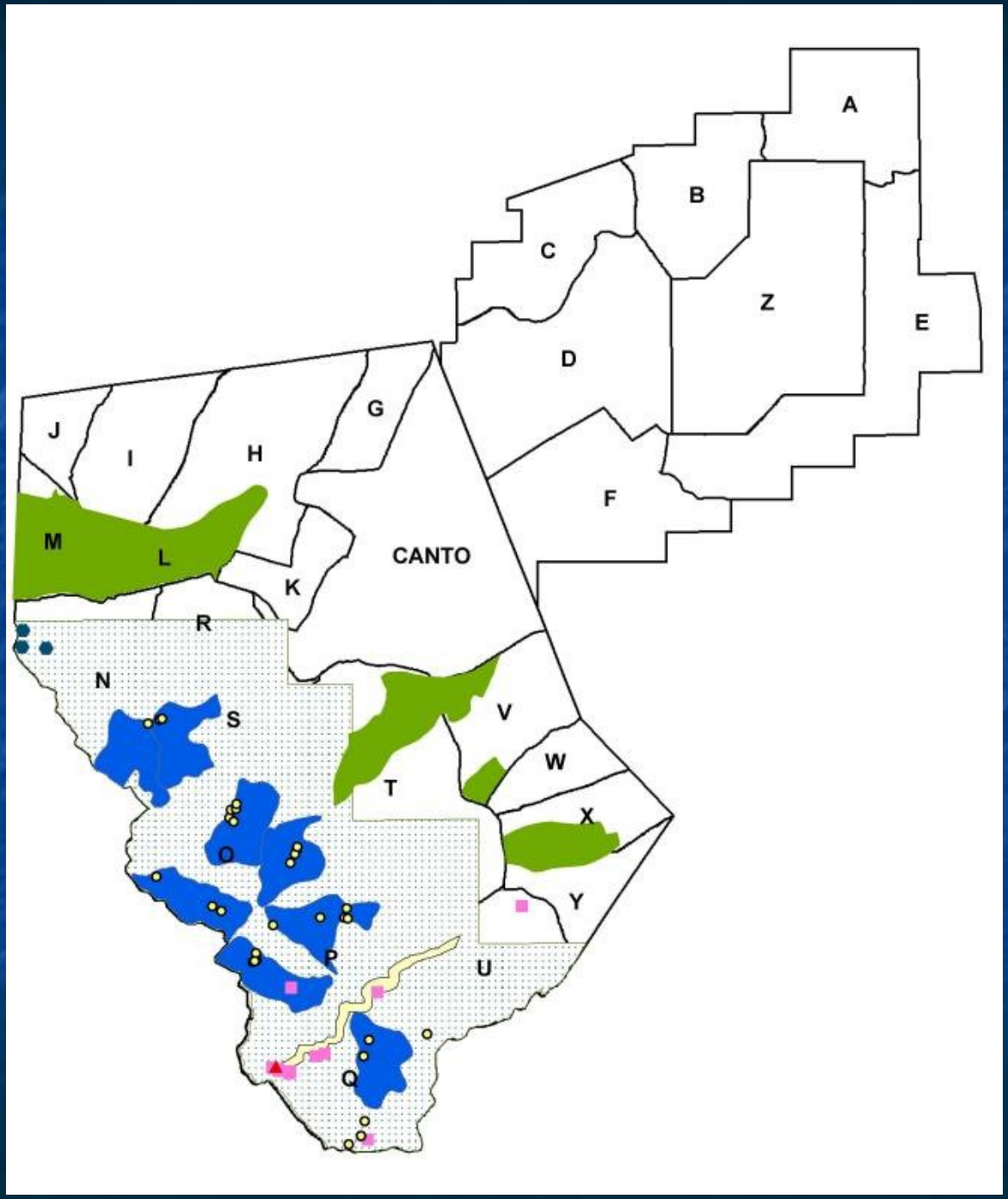
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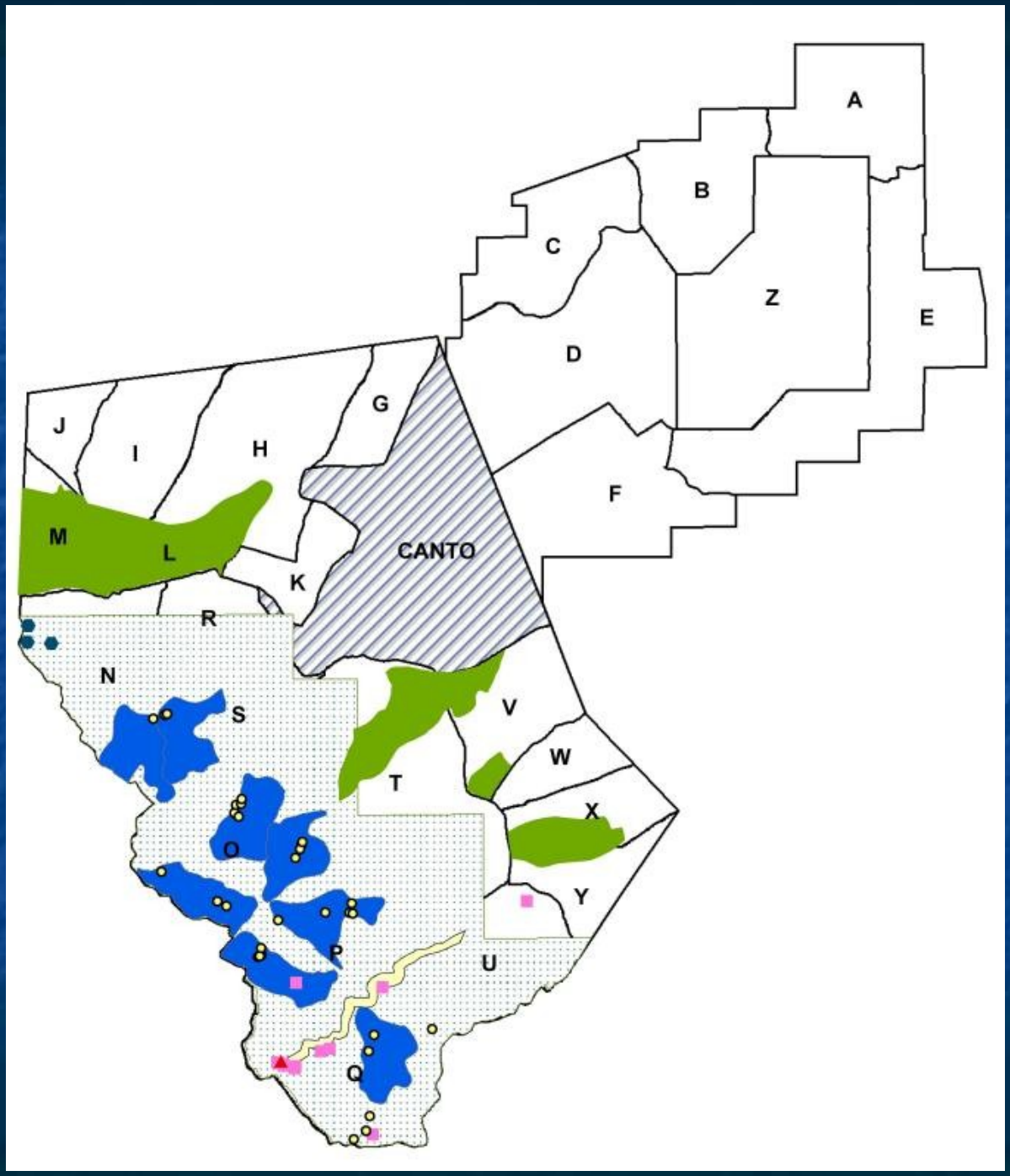
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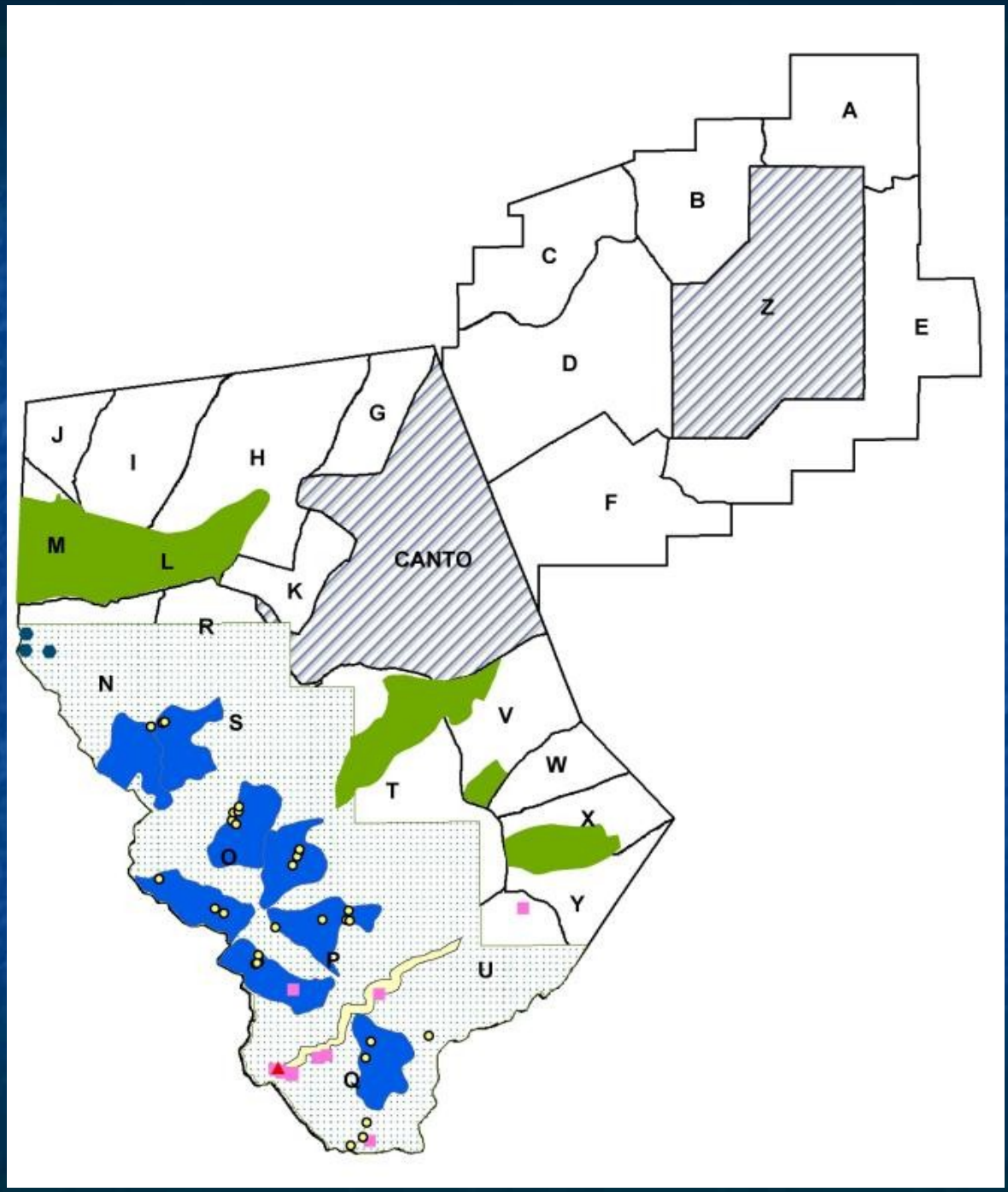
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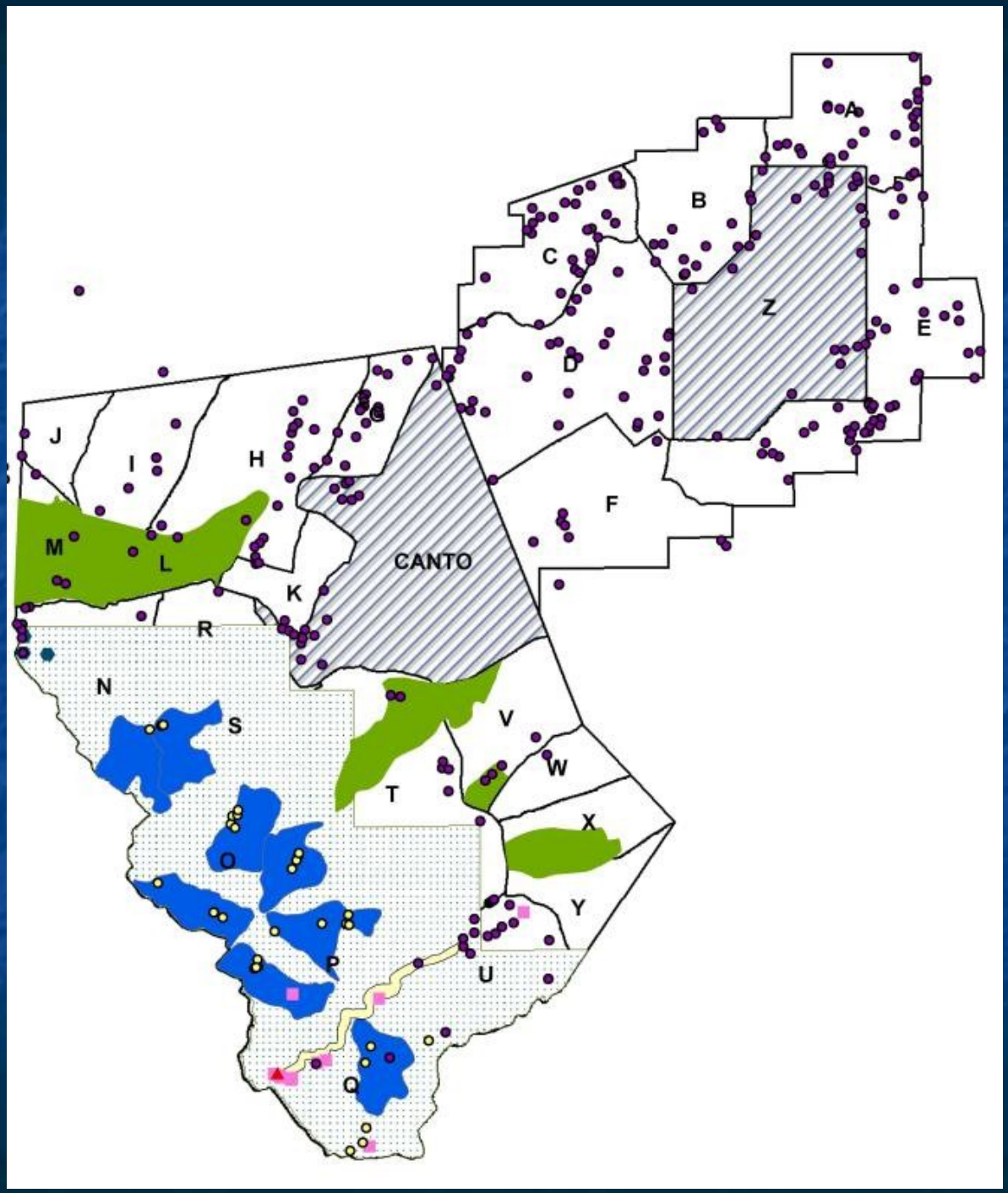
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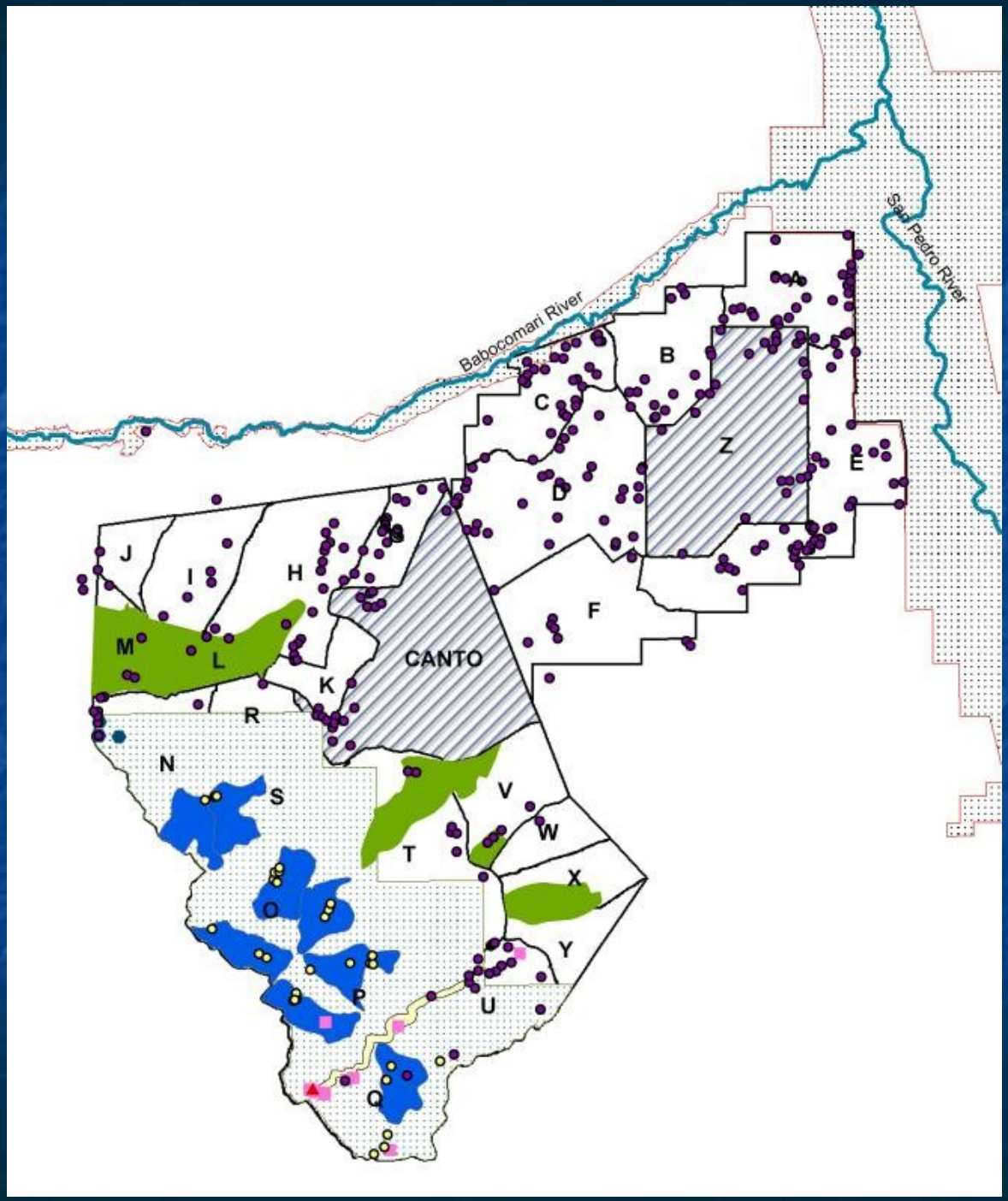
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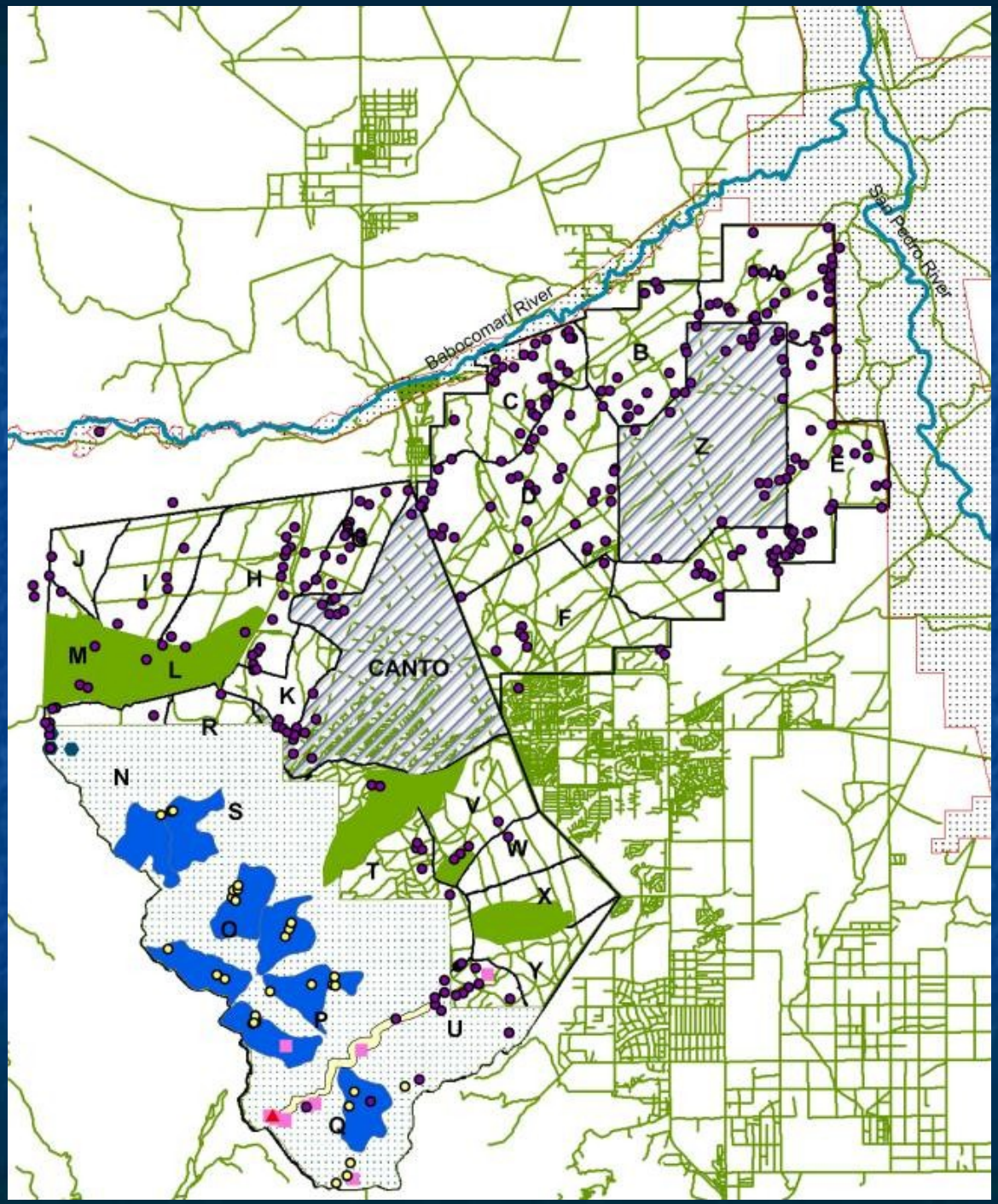
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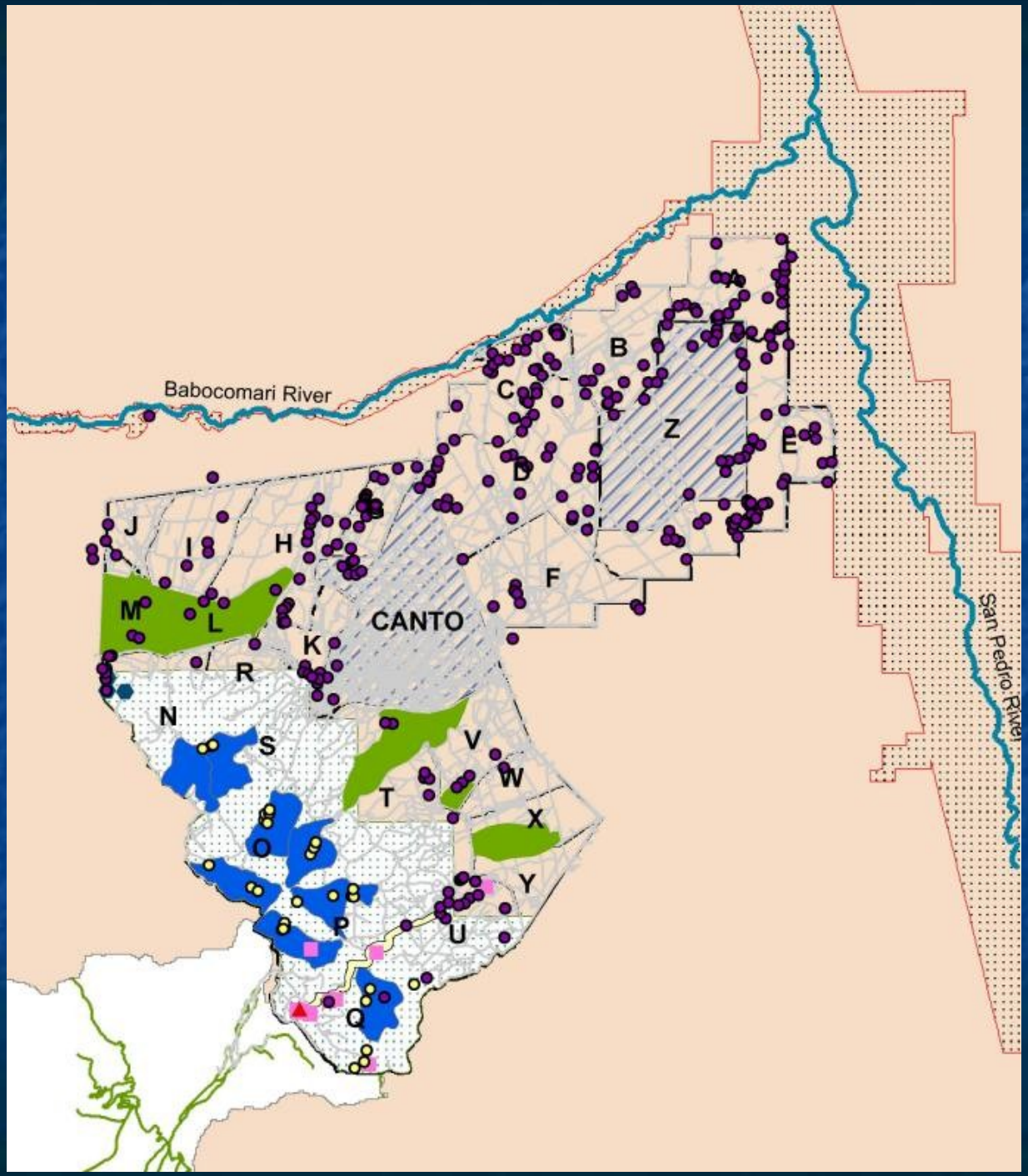
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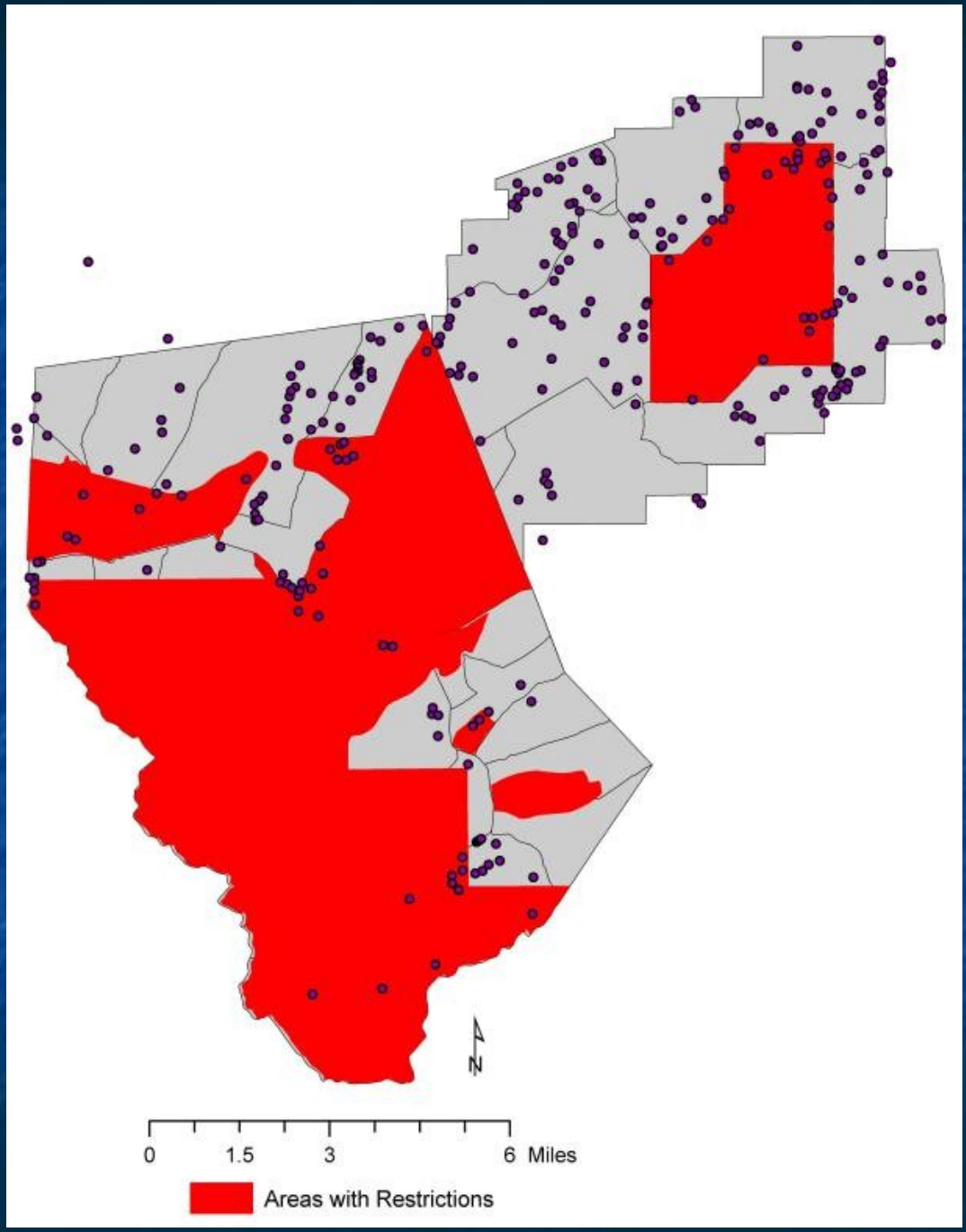
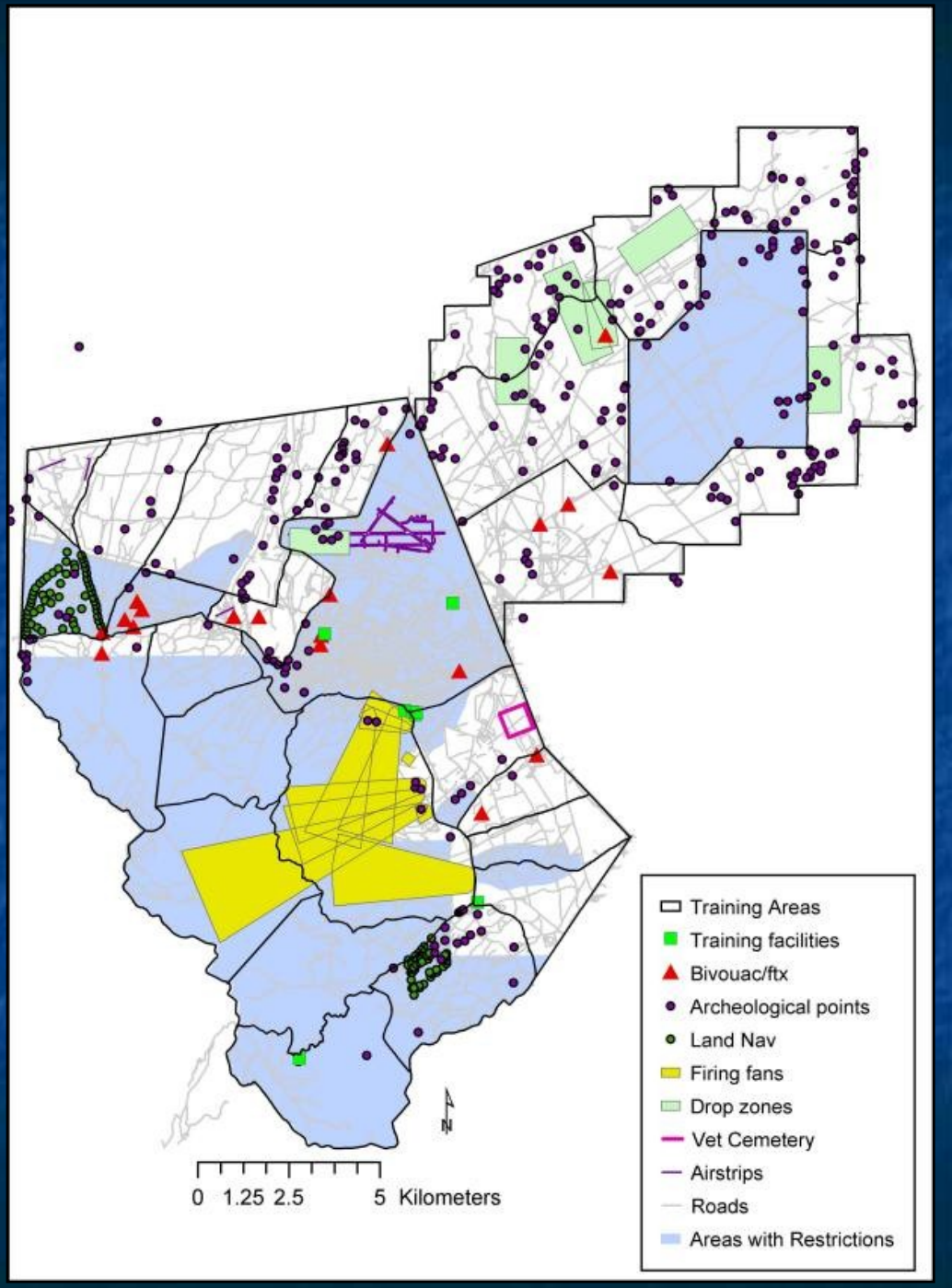
Areas with restrictions (not including the north and east boundaries)



Training sites/facilities with restricted areas



Other Restrictions

Due to extreme fire hazard…

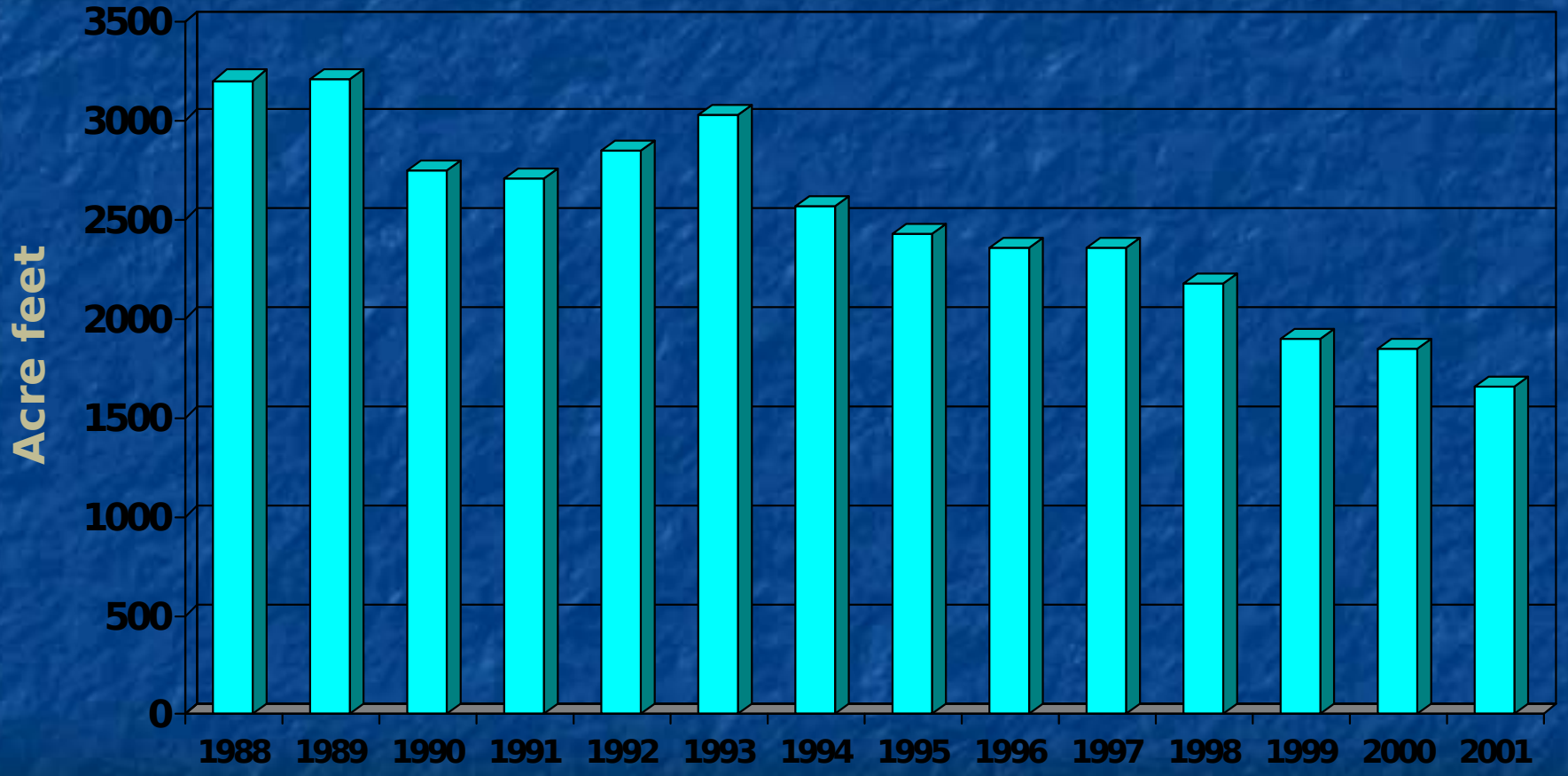
- No pyrotechnics on any range during pre-monsoon. drought season (approximately April through June).
- No pyrotechnics on any range during pre-winter drought season (approximately mid-October through mid-November).
- No pyrotechnics if we don't get any RAIN (including fireworks on the 4th of July)!!!

…unless weather/fuel moisture conditions are determined to be favorable.

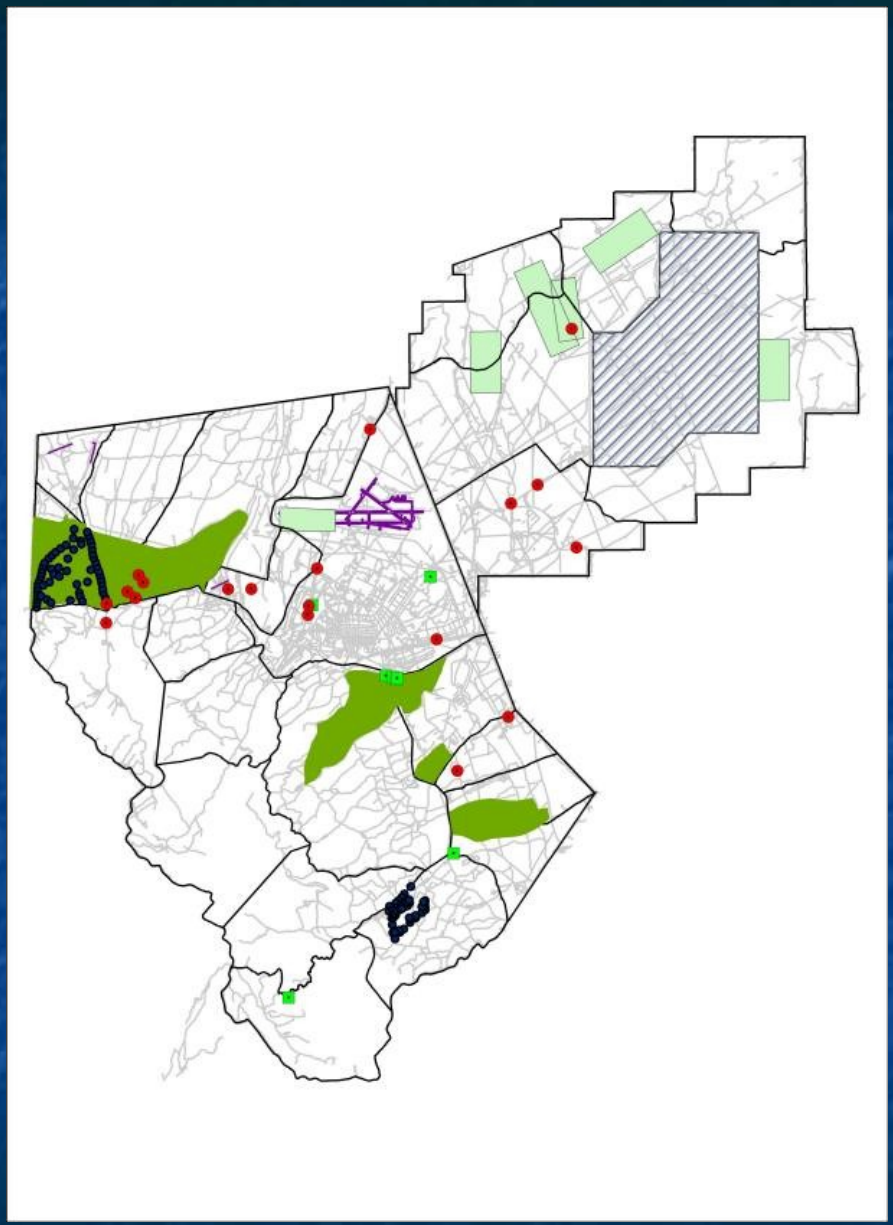
Training integration ...What are we doing?

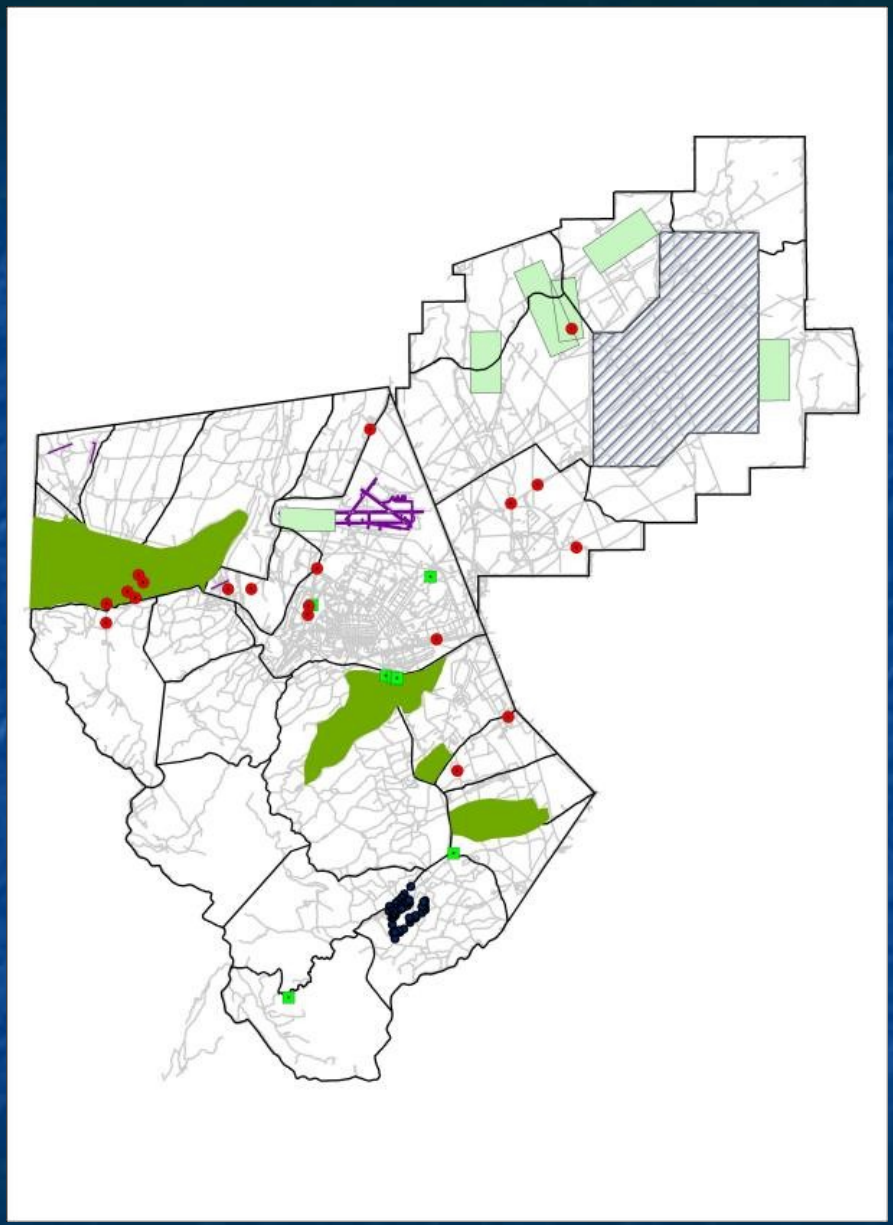
- Water
- Agave management areas
- Critical habitat
- Cultural/historic sites

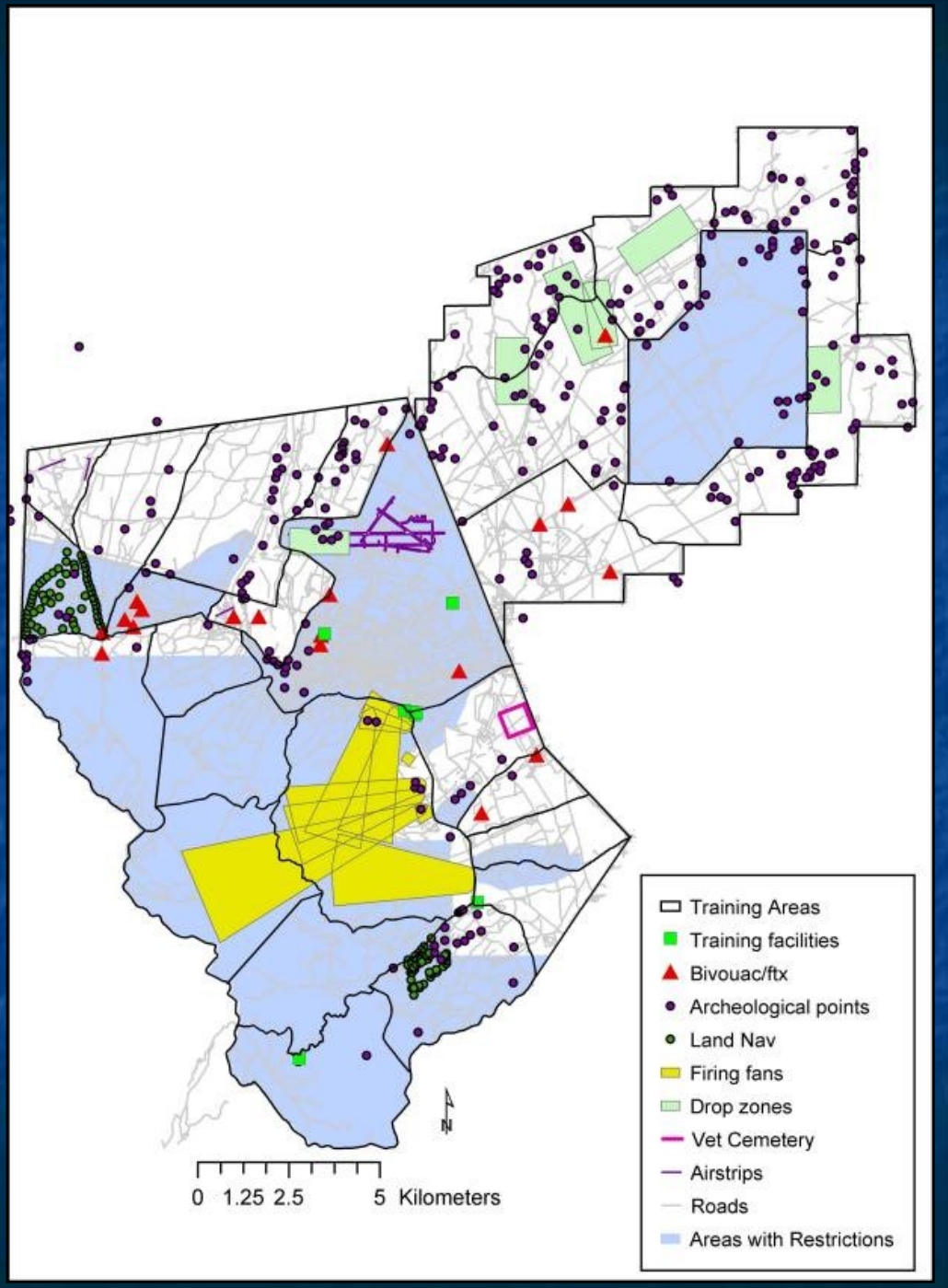
Fort Huachuca water use history



(fire good!)






Training Areas
Training facilities
Bivouac/ftx
Archeological points
Land Nav
Firing fans
Drop zones
Vet Cemetery
Airstrips
Roads
Areas with Restrictions
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